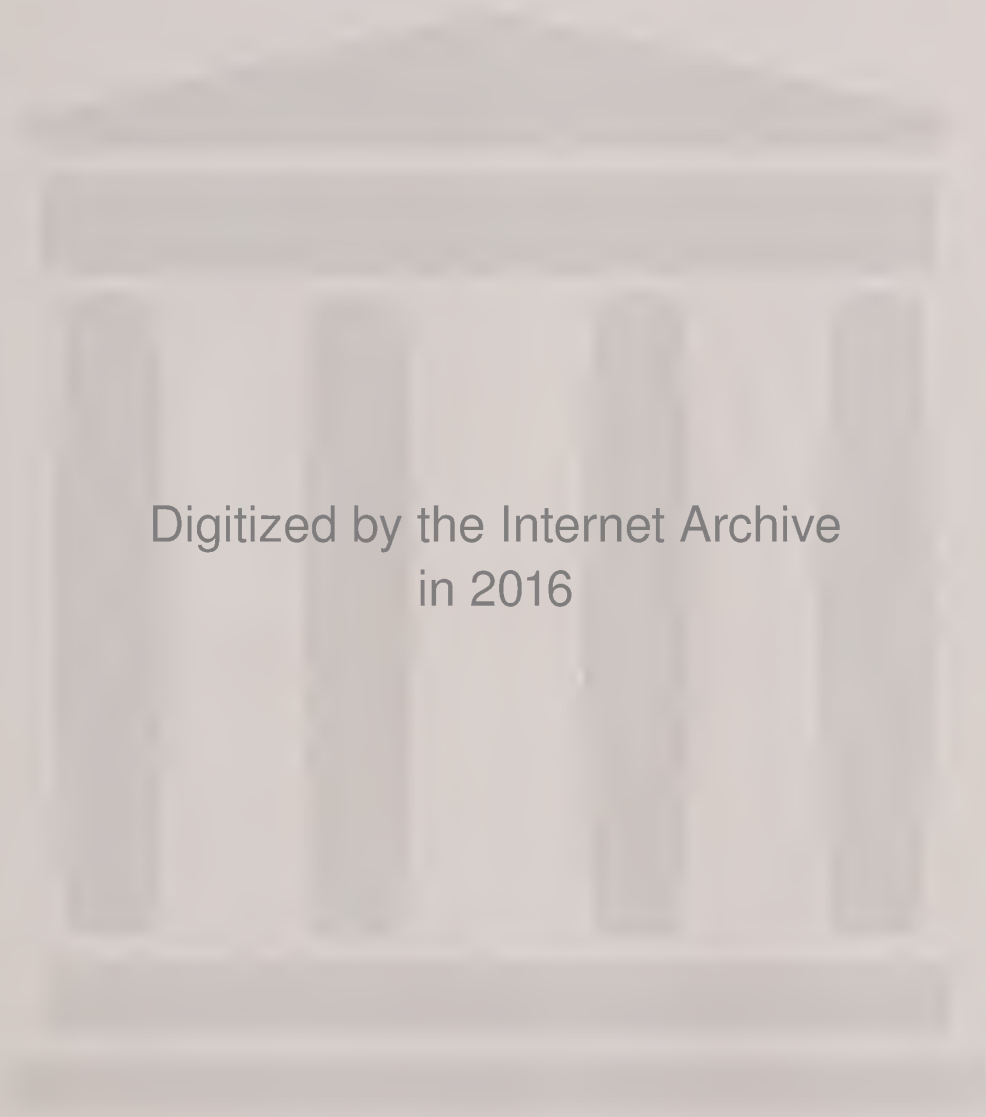
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THE JOURNAL OF THE Florida Medical Association

JANUARY, 1971 • VOLUME 58 • NUMBER 1

EDUCATION ISSUE

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Now that there's a greater therapeutic potential for treating Parkinson's disease and syndrome

...the information on these pages will be of practical interest to you

Larodopa® (levodopa) Roche : therapy that demands slow, individualized dosage titration

With the advent of new Larodopa (levodopa), there is now an agent that holds promise of relief of all the major symptoms of Parkinson's disease and syndrome—rigidity and akinesia as well as tremor.

However, as has been reported in the medical literature, levodopa demands slow, careful titration of dosage, and frequent patient monitoring. Adverse reactions may occur at any time, some serious enough to require dosage reduction or discontinuance of therapy. Thus, before prescribing, it is particularly important to refer to the following Important Therapeutic Considerations, the sections covering dosage and administration, and to the information on monitoring the patient (see prescribing information).

Important Therapeutic Considerations

Larodopa (levodopa) is an unusual drug which must be administered with particular care. In view of its high incidence of adverse reactions, you will find the following therapeutic considerations for Larodopa important:

(a) Larodopa is not curative and its mechanism of action is unknown, though postulated.

(b) Long-term safety and efficacy for Larodopa have not been established.

(c) Accurate diagnosis is imperative since there is no evidence that Larodopa is effective in neurological diseases other than Parkinson's disease and syndrome.

(d) About one-third of patients or more will not experience clinical improvement on Larodopa, and virtually 100% of patients will experience side effects of some degree.

(e) The dose of Larodopa producing maximal improvement with tolerated side effects must be *carefully titrated for the individual patient.*

(f) Finally, there is no evidence that early treatment with Larodopa, while possibly controlling symptomatology, alters the course of the disease.





Photographs of patients treated with Larodopa by permission of the patients.

Guide to dosage and administration of Larodopa® (levodopa) Roche

Usual daily dosage—initially, 0.5 to 1 Gm daily (divided 2 or more doses with food).

Total daily dosage—increased gradually in increments of 0.125 to 0.75 Gm every 2 or 3 days, as tolerated.

Usual daily dose range—from 4 to 6 Gm given orally in 3 or more divided doses, with food.

Daily dosage should NOT exceed 8 Gm.

Optimal therapeutic dosage—usually reached in 6 to 8 weeks.

Establishing optimal dosage—must be determined and *carefully titrated for the individual*—gradually increase dosage until: (1) maximal response is seen, or (2) maximu recommended dosage is reached, or (3) side effects preclude further dosage increase, or require reduction discontinuation of dosage.

Interrupted therapy—after brief interruption, dosage should again be adjusted gradually. (In many cases, the patient can be rapidly titrated to his previous therapeut dosage. See "Precautions" section of Complete Prescribi Information.)

To underscore the extreme importance of careful dosage titration, the following week-by-week dosage pattern has been prepared, based on the assumption that the course o therapy is uninterrupted by any complications requiring a change in dosage. (Again, dosage must be reduced whe intolerable side effects occur.)

Because it is absolutely imperative that Larodopa therapy be individualized to meet the particular needs of each patient, the following dosage schedule should be consider only a model.

Larodopa®
levodopa/Roche

ltration of Larodopa (levodopa) dosage patient evaluated weekly

ervals	0.25 Gm Tablets	0.5 Gm Tablets	Total Daily Dose
ek 1	½ tab (0.125 Gm) *q.i.d.* w/ food		0.5 Gm
ek 2	1 tab (0.25 Gm) *q.i.d.* w/ food		1.0 Gm
ek 3	1½ tab (0.375 Gm) *q.i.d.* w/ food		1.5 Gm
ek 4		1 tab (0.5 Gm) *q.i.d.* w/ food	2.0 Gm
ek 5		1½ tab (0.750 Gm) at breakfast and dinner. 1 tab (0.5 Gm) at lunch and bedtime	2.5 Gm
ek 6		1½ tab (0.750 Gm) *q.i.d.* w/ food	3.0 Gm
ek 7		2 tab (1.0 Gm) at breakfast and dinner. 1½ tab (0.750 Gm) at lunch and bedtime	3.5 Gm
ek 8		2 tab (1.0 Gm) *q.i.d.* w/ food	4.0 Gm

he daily maintenance dosage in the above example may e increased, decreased, or maintained at the 4 Gm level epending upon the point at which optimal therapeutic esults are achieved.

oncurrent therapies: Larodopa (levodopa) may be used oncomitantly with other antiparkinsonism drugs such as enztropine mesylate (Cogentin), trihexyphenidyl HCl Artane) or procyclidine HCl (Kemadrin), but when more nan one drug is used, the usual dose of each may have to e reduced.

lot to be given concomitantly: MAO inhibitors. Such gents must be discontinued two weeks prior to initiating arodopa therapy.

Note of caution for patients who require vitamin upplementation: It has been reported that pyridoxine HCl vitamin B_6) can rapidly reverse the antiparkinson effects f levodopa therapy.

A timetable for monitoring

While it cannot be emphasized too strongly that each patient on Larodopa must be treated as a totally *distinct* entity, the following are suggested as guidelines in the monitoring of such patients.

1. *For the first month, at least:* the average ambulatory outpatient should be seen and evaluated a minimum of *once a week.*

2. *During the second month:* patient evaluations can be extended to *every two weeks* (assuming no laboratory abnormalities or intolerable side effects have occurred).

3. *From the third through the sixth month:* the patient should be evaluated *once a month.*

4. *After six months on the appropriate maintenance dose:* with no significant adverse reactions or laboratory abnormalities, the patient should be seen at least *once every two months.*

5. *Finally, after one year on maintenance dosage:* evaluation should be made no less than *once every three months.*

Therapeutic response

A favorable response may often be seen within 10 days to several weeks. However, a patient should not be taken off a tolerable dose—even in the absence of a response—until six months have elapsed. This is because, in some instances, the response may come relatively late. Of course, any serious laboratory abnormalities or intolerable side effects automatically dictate discontinuance of therapy.

Lessening the side-effects problem

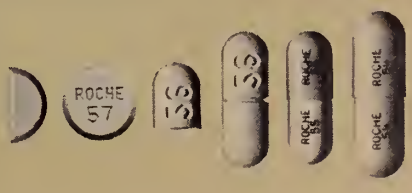
While it is generally advisable that levodopa be taken after meals, nausea and vomiting, two frequently occurring side effects of levodopa, can often be minimized by taking medication with foods. If nausea becomes intolerable, the dosage should be cut back in daily decrements equal to the most recent increments given the patient. This reduction is to be spaced over two- or three-day intervals. Conversely, as nausea subsides, the drug dosage should be slowly increased in like increments.

An important part of the routine monitoring procedure would be to determine any possible cardiovascular problems. If cardiac arrhythmias occur, Larodopa should be discontinued and other antiparkinson therapy instituted.

With orthostatic hypotension a possibility, checking the patient's blood pressure (both supine and standing) is essential.

If choreiform movements appear, they usually occur when maximum therapeutic dosages are reached. To control such effects, reduce dosage by decrements of 0.5 Gm daily.

Flexible dosage: scored tablets of 0.25 Gm and 0.5 Gm help simplify dosage titration



Conveniently scored 0.25 and 0.5 Gm tablets make possible more precise titration. Should another dosage form be preferred, Larodopa is also supplied in capsule strengths of 0.25 and 0.5 Gm.

Before prescribing, please consult product information on next page. →

For the relief of symptoms associated with Parkinson's disease and syndrome

Larodopa®
levodopa/Roche

Before prescribing, please consult complete product information, a summary of which follows:

BECAUSE OF THE HIGH INCIDENCE OF ADVERSE REACTIONS AND THE NECESSITY FOR INDIVIDUALIZING THERAPY, THE PHYSICIAN SHOULD THOROUGHLY FAMILIARIZE HIMSELF WITH THE INFORMATION IN THE PACKAGE INSERT BEFORE INSTITUTING THERAPY WITH LARODOPA (LEVODOPA). ACCURATE DIAGNOSIS IS IMPERATIVE BECAUSE EVIDENCE IS LACKING THAT LARODOPA IS EFFECTIVE IN NEUROLOGICAL DISEASES OTHER THAN PARKINSON'S DISEASE AND SYNDROME.

ADEQUATE CLINICAL AND LABORATORY FACILITIES SHOULD BE AVAILABLE FOR PROPER MONITORING OF TREATMENT.

THE LONG-TERM SAFETY AND EFFICACY OF LARODOPA HAVE NOT BEEN ESTABLISHED.

Indications: For the treatment of Parkinson's disease and syndrome. Useful in relieving many of the symptoms, particularly rigidity and bradykinesia; frequently helpful in management of associated tremor, dysphagia, sialorrhea and postural instability.

Contraindications: In patients for whom a sympathomimetic amine is contraindicated; in patients receiving MAO inhibitors (the latter should be discontinued two weeks prior to initiating therapy with Larodopa); in patients with clinical or laboratory evidence of **uncompensated** endocrine, renal, hepatic, cardiovascular or pulmonary disease; with narrow angle glaucoma and blood dyscrasias; in patients with known hypersensitivity to levodopa.



Warnings: Long-term safety and efficacy not established. Administer with extreme caution to patients with bronchial asthma or emphysema who may require sympathomimetic drugs; to those with active peptic ulcer (in facilities equipped to treat gastrointestinal hemorrhage); in patients with psychoses or severe psychoneuroses. Initiate therapy with extreme caution and in proper treatment facility in patients with a history of myocardial infarction who have residual atrial, nodal or ventricular arrhythmias. Monitor all patients for development of mental changes, depression with suicidal tendencies, other serious antisocial behavior. Carefully consider concomitant administration of pyridoxine hydrochloride (vitamin B_6); oral doses of 10 to 25 mg have been reported to rapidly reverse the antiparkinson effects of Larodopa. In pregnancy, weigh potential benefits against possible hazards. Do not use in nursing mothers. Safety of Larodopa in children under age 12 not established.

Precautions: During extended therapy, periodic evaluations of hepatic, hematopoietic, cardiovascular and renal function recommended. In diabetic patients, control may be adversely affected; careful, frequent monitoring and proper adjustment of antidiabetic regimen required. Patients with chronic wide angle glaucoma may be treated cautiously provided intraocular pressure is well controlled and patient is monitored carefully. Monitor carefully patients receiving antihypertensive agents or psychoactive drugs concomitantly, or those with history of convulsions. If general anesthesia is required, discontinue Larodopa 24 hours prior to surgery; monitor cardiorespiratory functions carefully. Patients who improve on Larodopa therapy should resume normal activities cautiously. May be used concomitantly with other antiparkinson drugs with possible reduction in dosage of each.

Adverse Reactions: *Most frequently occurring:* nausea, anorexia, emesis, cardiac irregularities, orthostatic hypotension; choreiform, dystonic and other adventitious movements; dizziness, sedation, dyskinesia; psychiatric symptoms such as agitation, anxiety, confusion, depression, hallucinations, delusions, insomnia, nightmares, and mental changes including paranoid ideation and psychotic episodes. *Less frequently occurring* and listed according to system: *psychiatric*—suicidal tendencies, increased libido with serious antisocial behavior, euphoria, lethargy, stimulation, fatigue and malaise, dementia; *neurological*—ataxia, convulsions, faintness, impairment of gait, headache, increased hand tremor, akinetic episodes, torticollis, trismus, oculogyric crisis, weakness, numbness, bruxism; *gastrointestinal*—constipation, diarrhea, epigastric and abdominal distress and pain, flatulence, eructation, hiccups, sialorrhea, difficulty in swallowing, bitter taste, dry mouth, tightness of mouth, lips or tongue, duodenal ulcer, gastrointestinal bleeding, burning sensation of the tongue; *cardiovascular*—nonspecific ECG changes, palpitations, hypertension, flushing, phlebitis; *hematological*—hemolytic anemia (1 case); *dermatological*—sweating, edema, hair loss, pallor, rash, bad odor; *musculoskeletal*—low back pain, muscle spasm and twitching, blepharospasm, musculoskeletal pain; *respiratory*—feeling of pressure in the chest, cough, hoarseness, bizarre breathing pattern, postnasal drip; *urogenital*—urinary frequency, retention, incontinence, hematuria, nocturia, and one report of interstitial nephritis; *special senses*—blurred vision, diplopia, dilated pupils, activation of latent Horner's syndrome; *other*—fever, hot flashes, weight gain or weight loss.

Nausea, anorexia and vomiting usually obviated by temporary dosage reduction and/or administration with food. If cardiac arrhythmias occur, discontinue and institute other antiparkinson therapy. Reduce dosage when involuntary movements occur.

The following have been noted: elevation of BUN, SGOT, SGPT, LDH, bilirubin, alkaline phosphatase or PBI; occasionally, reductions in WBC, hemoglobin and hematocrit; elevations of uric acid with use of colorimetric method but not with uricase; rarely, positive Coombs test; dark sweat and urine.

Dosage and Administration: Because of the strong possibility of adverse reactions and the necessity for individualizing therapy, the physician should thoroughly familiarize himself with the information in the package insert before instituting therapy.

How Supplied: *Tablets*, pink, scored, containing 0.25 Gm levodopa (imprinted Roche 57) or 0.5 Gm levodopa (imprinted Roche 56)—bottles of 100 and 500.

Capsules, containing 0.25 Gm levodopa (pink and beige, imprinted Roche 55) or 0.5 Gm levodopa (pink, imprinted Roche 54)—bottles of 100 and 500.

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References: 1. Data on file in the Manu facturing Department of Warner-Chilcott Labora tories. **2.** Data on file in the Medical Departmer of Warner-Chilcott Laboratories.

TRATE® SA Sustained Action (pentaerythri- tranitrate) 80 mg
double-layer, biconvex, dark green/light n tablet of Peritrate SA Sustained Action ains: pentaerythritol tetranitrate 80 mg (20 in immediate release layer and 60 mg in ained release base). Peritrate® (pentaeryth- tetranitrate) is a nitric acid ester of a tet- dric alcohol (pentaerythritol). **Actions:** The t cause of angina pectoris (that is, the associated with coronary artery disease) ains obscure, despite the numerous and conflicting hypotheses concerning its path- siology. Therapy at the present time, there- remains essentially empirical. Customarily, cal improvement has been measured by: ction in (1) number, intensity and duration ngina pectoris attacks and (2) necessity glyceryl trinitrate intake for prevention or f of anginal attacks. Peritrate SA Sus- ed Action (pentaerythritol tetranitrate) 80 has been reported in clinical usage to re- e in number and severity the incidence of na pectoris attacks, with concomitant re- ion in glyceryl trinitrate intake. In the eval- on of Peritrate SA Sustained Action taerythritol tetranitrate) 80 mg in angina oris, clinical improvement has been cus- arily measured subjectively by: reduction in ber and severity of attacks and necessity glyceryl trinitrate intake for prevention or tion of anginal attacks. Individual patterns ngina pectoris differ widely as does the ptomatic response to antianginal agents as pentaerythritol tetranitrate. The pub- ed literature contains both favorable and vorable clinical reports. In conjunction with management of the patient with angina oris, Peritrate SA Sustained Action (penta- ritol tetranitrate) 80 mg has been accepted as safe for prolonged administration and widely regarded as useful. **Indications:** Peritrate SA Sustained Action (pentaerythritol tetranitrate) 80 mg is indicated for the relief of angina pectoris (pain associated with coronary artery disease). It is not intended to abort the acute anginal episode but is widely regarded as useful in the prophylactic treatment of angina pectoris. **Contraindications:** Peritrate SA Sustained Action (pentaerythritol tetranitrate) 80 mg is contraindicated in patients who have a history of sensitivity to the drug. **Warning:** Data supporting the use of Peritrate (pentaerythritol tetranitrate) during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety. This drug can act as a physiological antagonist to norepinephrine, acetylcholine, histamine, and many other agents. **Precautions:** Should be used with caution in patients who have glaucoma. Tolerance to this drug, and cross-tolerance to other nitrites and nitrates may occur. **Adverse Reactions:** Side effects reported to date have been predominantly related to rash (which requires discontinuation of medication) and headache and gastrointestinal distress, which are usually mild and transient with continuation of medication. In some cases severe persistent headaches may occur. In addition, the following adverse reactions to nitrates such as pentaerythritol tetranitrate have been reported in the literature: (a) Cutaneous vasodilatation with flushing. (b) Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop. (c) An occasional individual exhibits marked sensitivity to the hypotensive effects of nitrite and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration and collapse) can occur, eve with the usual therapeutic doses. Alcohol ma enhance this effect. **Dosage:** Peritrate SA Sus tained Action (pentaerythritol tetranitrate) 80 m (b.i.d. on an empty stomach), 1 tablet immed ately on arising and 1 tablet 12 hours late **Supplied:** Peritrate SA Sustained Action (pen taerythritol tetranitrate) 80 mg, bottles of 10 and 1000 tablets. **Additional Dosage Forms** Peritrate (pentaerythritol tetranitrate) 10 mg an 20 mg tablets with or without phenobarbital 1 mg, bottles of 100 and 1000 tablets. Peritrat with Phenobarbital SA Sustained Action—penta erythritol tetranitrate 80 mg and phenobarbita 45 mg, bottles of 100 and 1000 tablets (WARNING: Tablets containing phenobarbita may be habit forming.) Peritrate with Nitroglyc erin—pentaerythritol tetranitrate 10 mg with n troglycerin 0.3 mg, bottles of 50 tablets. **Anima Pharmacology:** In a series of carefully designe studies in pigs, Peritrate (pentaerythritol tetran trate) was administered for 48 hours before a artificially induced occlusion of a major coro nary artery and for seven days thereafter. Th pigs were sacrificed at various intervals for pe riods up to six weeks. The result showed significantly larger number of survivors in th drug-treated group. Damage to myocardial tis sue in the drug-treated survivors was less ex tensive than in the untreated group. Studies i dogs subjected to oligemic shock through pr gressive bleeding have demonstrated tha Peritrate (pentaerythritol tetranitrate) is vasc active at the postarteriolar level, producing in creased blood flow and better tissue perfusi These animal experiments cannot be translate to the drug's actions in humans.

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Hygroton® chlorthalidone USP *Indications:* Hypertension and many types of edema involving retention of salt and water. *Contraindications:* Hypersensitivity and most cases of severe renal or hepatic diseases. *Warnings:* With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small-bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has been required frequently and deaths have occurred. Discontinue enteric-coated potassium supplements immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Use with caution in pregnant women and nursing mothers since the drug crosses the placental barrier and appears in cord blood and since thiazides appear in breast milk. The drug may result in fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult. When used in women of childbearing age, balance benefits of drug against possible hazards to fetus. *Precautions:* Antihypertensive therapy with this drug should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents, other potent antihypertensive drugs or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. Because of the possibility of progression of renal damage, periodic determination of the BUN is indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated. Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, the drug should be discontinued and potassium supplements given, provided the patient does not have marked oliguria. Take special care in cirrhosis or severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended. *Adverse Reactions:* Nausea, gastric irritation, vomiting, anorexia, constipation and cramping, dizziness, weakness, restlessness, hyperglycemia, glycosuria, hyperuricemia, headache, muscle cramps, orthostatic hypotension, which may be potentiated when chlorthalidone is combined with barbiturates, narcotics or alcohol, aplastic anemia, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin rashes, urticaria, purpura, necrotizing angiitis, acute gout, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Other reactions reported with this class of compounds include: jaundice, xanthopsia, paresthesia, and photosensitization. *Average Dosage:* 50 or 100 mg. with breakfast daily or 100 mg. every other day. *How Supplied:* White, single-scored tablets of 100 mg. and aqua tablets of 50 mg., in bottles of 100 and 1000. (B)46-230-G *For full details, please see the complete prescribing information.*

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(diethylpropion hydrochloride)

works on the appetite not on the 'nerves'

When girth gets out of control, TEPANIL can provide sound support for the weight control program you recommend. TEPANIL reduces the appetite—patients enjoy food but eat less. Weight loss is significant—gradual—yet there is a relatively low incidence of CNS stimulation.

Contraindications: Concurrently with MAO inhibitors, in patients hypersensitive to this drug; in emotionally unstable patients susceptible to drug abuse.

Warning: Although generally safer than the amphetamines, use with great caution in patients with severe hypertension or severe cardiovascular disease. Do not use during first trimester of pregnancy unless potential benefits outweigh potential risks.

Adverse Reactions: Rarely severe enough to require discontinuation of therapy, unpleasant symptoms with diethylpropion hydrochloride have been reported to occur in relatively low incidence. As is characteristic of sympathomimetic agents, it may occasionally cause CNS effects such as insomnia, nervousness, dizziness, anxiety, and jitteriness. In contrast, CNS depression has been reported. In a few epileptics an increase in convulsive episodes has been reported. Sympathomimetic cardiovascular effects reported include ones such as tachycardia, precordial pain, arrhythmia, palpitation, and increased blood pressure. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride; this was an isolated experience, which has not been reported by others. Allergic phenomena reported include such conditions as rash, urticaria, ecchymosis, and erythema. Gastrointestinal effects such as diarrhea, constipation, nausea, vomiting, and abdominal discomfort have been reported. Specific reports on the hematopoietic system include two each of bone marrow depression, agranulocytosis, and leukopenia. A variety of miscellaneous adverse reactions have been reported by physicians. These include complaints such as dry mouth, headache, dyspnea, menstrual upset, hair loss, muscle pain, decreased libido, dysuria, and polyuria.

Convenience of two dosage forms: TEPANIL Ten-tab tablets: One 75 mg. tablet daily, swallowed whole, in midmorning (10 a.m.); TEPANIL: One 25 mg. tablet three times daily, one hour before meals. If desired, an additional tablet may be given in midevening to overcome night hunger. Use in children under 12 years of age is not recommended.

T-006A / 1/70 / U.S. PATENT NO. 3,001,910

THE NATIONAL DRUG COMPANY
DIVISION OF RICHARDSON-MERRELL INC.
PHILADELPHIA, PENNSYLVANIA 19144



Painful night leg cramps...

unwelcome bedfellow for any patient– including those with arthritis, diabetes or PVD

One thing patients can sleep without, particularly patients with chronic disease conditions such as arthritis, diabetes or PVD, is painful night leg cramps. Although seldom the presenting complaint, night leg cramps can tie your patients up in painful knots. Now, just one tablet of QUINAMM at bedtime can usually bring an end to shattered sleep and needless suffering. Your patients will sleep restfully—gratefully—with QUINAMM, specific therapy to prevent painful night leg cramps.

Prescribing Information—Composition: Each white, beveled, compressed tablet contains: Quinine sulfate, 260 mg., Aminophylline, 195 mg. **Indications:** For the prevention and treatment of nocturnal and recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis and static foot deformities. **Contraindications:** QUINAMM is contraindicated in pregnancy because of its quinine content. **Precautions/Adverse Reactions:** Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. Discontinue use if ringing in the ears, deafness, skin rash, or visual disturbances occur. **Dosage:** One tablet upon retiring. Where necessary, dosage may be increased to one tablet following the evening meal and one tablet upon retiring. **Supplied:** Bottles of 100 and 500 tablets.

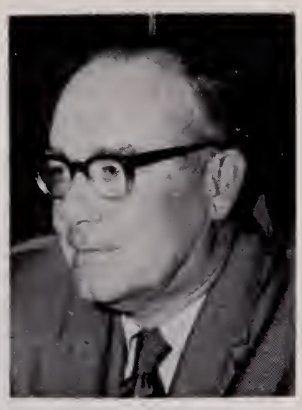
THE NATIONAL DRUG COMPANY
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PHILADELPHIA, PENNSYLVANIA 19144

Quinamm™
(quinine sulfate 260 mg., aminophylline 195 mg.)

Specific therapy for night leg cramps

0915

President's Page



Dual Fee Schedule

Florida medicine had another governmental edict shoved down its throat a few weeks ago. SSA told Blue Shield they must start paying on a dual fee* basis.

The FMA policy on this subject has been clear for years; FMA opposes a dual fee schedule. Therefore, as it should, the Board of Directors of Blue Shield has opposed this directive from SSA. FMA is joining Blue Shield in this opposition. The outcome is uncertain. I intend for us to win our point.

It is my personal conviction that this is another attempt by certain socialistic governmental forces to cause dissent between members of the medical profession. Since the '30s, HEW and its predecessors have been strongly and progressively infiltrated by career personnel whose political thinking is akin to that of Wilbur Cohen. I think HEW is dominated by these people and they want a compulsory national health insurance. Their chief opponent is the medical profession. If they can divide our profession; if they can force us to deny our own organization, the AMA; any tactic to disrupt our unanimity—these things will enhance their own efforts.

Blue Shield is going to have a tough time opposing this; the FMA will have it just as tough. Neither can appease all the doctors with its efforts; the socialists know and depend on this.

I'm sure the dual fee question will not be the only effort to divide us. This year, more than ever before, we shall need a united profession. Long ago, I personally promised to oppose the socialization of medicine as strongly as humanly possible; I shall continue that fight, as shall my successors, I'm sure.

Let us all refuse to succumb to the wily tactics of those who would see us divided and conquered.

*Determined by length of physician's training.

James T. Cook, Jr., MD.

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Brief Summary of Prescribing Information–9-9/22/69. For complete information consult Official Package Circular.
Indications: Essential hypertension. Use cautiously in patients with renal insufficiency, particularly if they are digitalized.
Contraindications: Anuria, oliguria, active peptic ulceration, ulcerative colitis, severe depression or hypersensitivity to its components contraindicates the use of Salutensin.
Warnings: Small-bowel lesions (obstruction, hemorrhage, perforation and death) have occurred during therapy with enteric-coated formulations containing potassium, with or without thiazides. Such potassium formulations should be used with Salutensin only when indicated and should be discontinued immediately if abdominal pain, distension, nausea, vomiting or gastrointestinal bleeding occurs. Use cautiously, and only when deemed essential, in fertile, pregnant or lactating patients. *Use in Pregnancy:* Thiazides cross the placenta and can cause fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly electrolyte disturbances. Fatal reactions may occur with reserpine during electroshock therapy; discontinue Salutensin 2 weeks before such therapy. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.
Precautions: Azotemia, hypochloremia, hyponatremia, hypochloremic alkalosis and hypokaliemia (especially with hepatic cirrhosis and corticosteroid therapy) may occur, particularly with pre-existing vomiting and diarrhea. Potassium loss or protoveratrine A may cause digitalis intoxication. *Potassium loss responds to potassium-rich foods, potassium chloride or, if necessary, discontinuation of therapy. Stop therapy if protoveratrine A induces digitalis intoxication.* Serum ammonia elevation may precipitate coma in precomatose hepatic cirrhotics. Discontinue therapy 2 weeks before surgery or if myocardial irritability, progressive azotemia or severe depression occur. Exercise caution in patients with chronic uremia, angina pectoris, coronary thrombosis or extensive cerebral vascular disease *or bronchial asthma* and in those with a history of peptic ulceration or bronchial asthma; in post-sympathectomy patients; in patients on quinidine; and in patients with gallstones, in whom biliary colic may occur. Patients who have diabetes mellitus or who are suspected of being prediabetic should be kept under close observation if treated with this agent.
Adverse Reactions: Hydroflumethiazide: Skin rashes (including exfoliative dermatitis), skin photosensitivity, urticaria, necrotizing angiitis, xanthopsia, granulocytopenia, aplastic anemia, orthostatic hypotension (potentiated with alcohol, barbiturates or narcotics), allergic glomerulonephritis, acute pancreatitis, liver involvement (intrahepatic cholestatic jaundice), purpura plus or minus thrombocytopenia, hyperuricemia, hyperglycemia, glycosuria, malaise, weakness, dizziness, fatigue, paresthesias, muscle cramps, skin rash, epigastric distress, vomiting, diarrhea and constipation. *Reserpine:* Depression, peptic ulceration, diarrhea, Parkinsonism, nasal stuffiness, dryness of the mouth, weight gain, impotence or decreased libido, conjunctival injection, dull sensorium, deafness, glaucoma, uveitis, optic atrophy, and, with overdosage, agitation, insomnia and nightmares. *Protoveratrine A:* Nausea, vomiting, cardiac arrhythmia, prostration, blurring vision, mental confusion, excessive hypotension and bradycardia. (Treat bradycardia with atropine and hypotension with vasopressors.)
Usual Dose: 1 tablet b.i.d.
Supplied: Bottles of 60, 600, and 1000 scored 50 mg. tablets.

Salutensin®
hydroflumethiazide, 50 mg./reserpine, 0.125 mg. protoveratrine A, 0.2 mg.

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Syracuse, New York 13201

The antihypertensive therapy that is easy to live with.*

When successive blood pressure readings confirm essential hypertension, consider Salutensin for:

Easy-to-live-with control. Gradual reduction of blood pressure leading to decisive, comfortable control is the common clinical response.

*Salutensin is usually well-tolerated (however, serious side effects can occur; see adjacent column for brief summary of prescribing information).

Easy-to-live with dosage. Two tablets a day usually achieves control. One to two tablets a day often maintains control without need for additional antihypertensive agents.

Easy-to-live with cost of therapy. The one to two tablets a day maintenance dose makes Salutensin economical to stay with. Important, because long-term control calls for long-term therapy.

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hydroflumethiazide, 50 mg./reserpine, 0.125 mg. protoveratrine A, 0.2 mg.





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Double-strength Measurin timed-release aspirin offers a new kind of control for your arthritic patients. Each 10-grain tablet has over 6,000 microscopic reservoirs that release aspirin at a controlled rate—some right away and some later on. This means—fast relief, followed by long lasting relief. Throughout the day, Measurin gives your patients freedom from a 4-hour dosage schedule. Measurin can help your patients get a good night's sleep, uninterrupted by the need for an extra dose of aspirin. And, taken at bedtime, it also helps ease morning joint discomfort and stiffness.

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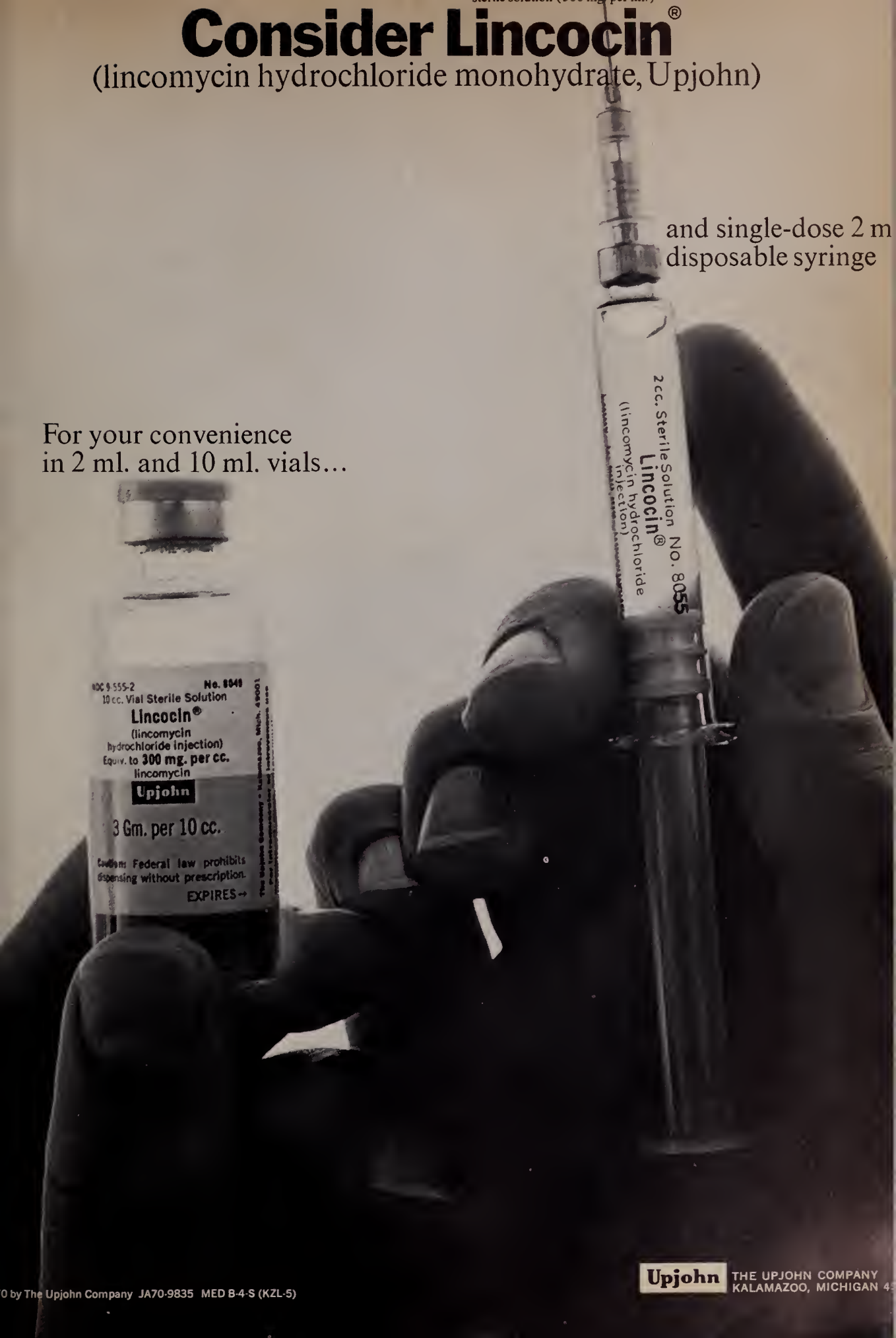
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Available: Bottles of 12, 36 and 60 tablets.

Consider Lincocin®

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and single-dose 2 m
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For your convenience
in 2 ml. and 10 ml. vials...



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The blowfish, a small specie
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...in the presence of spasm or hypermotility, gas distension and discomfort, **KINESED®** provides more complete relief:

☐ belladonna alkaloids—for the hyperactive bowel ☐ simethicone—for accompanying distension and pain due to gas ☐ phenobarbital—for associated anxiety and tension

Composition: Each chewable, fruit-flavored, scored tablet contains: 16 mg. phenobarbital (warning: may be habit-forming); 0.1 mg. hyoscyamine sulfate; 0.02 mg. atropine sulfate; 0.007 mg. scopolamine hydrobromide; 40 mg. simethicone.

Contraindications: Hypersensitivity to barbiturates or belladonna alkaloids, glaucoma, advanced renal or hepatic disease.

Precautions: Administer with caution to patients with incipient glaucoma, bladder neck obstruction or urinary bladder atony. Prolonged use of barbiturates may be habit-forming.

Side effects: Blurred vision, dry mouth, dysuria, and other atropine-like side effects may occur at high doses, but are only rarely noted at recommended dosages.

Dosage: Adults: One or two tablets three or four times daily. Dosage can be adjusted depending on diagnosis and severity of symptoms. Children 2 to 12 years: One half or one tablet three or four times daily. Tablets may be chewed or swallowed with liquids.



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(from the Greek **kinetikos,**
to move,
and the Latin **sedatus,**
to calm)

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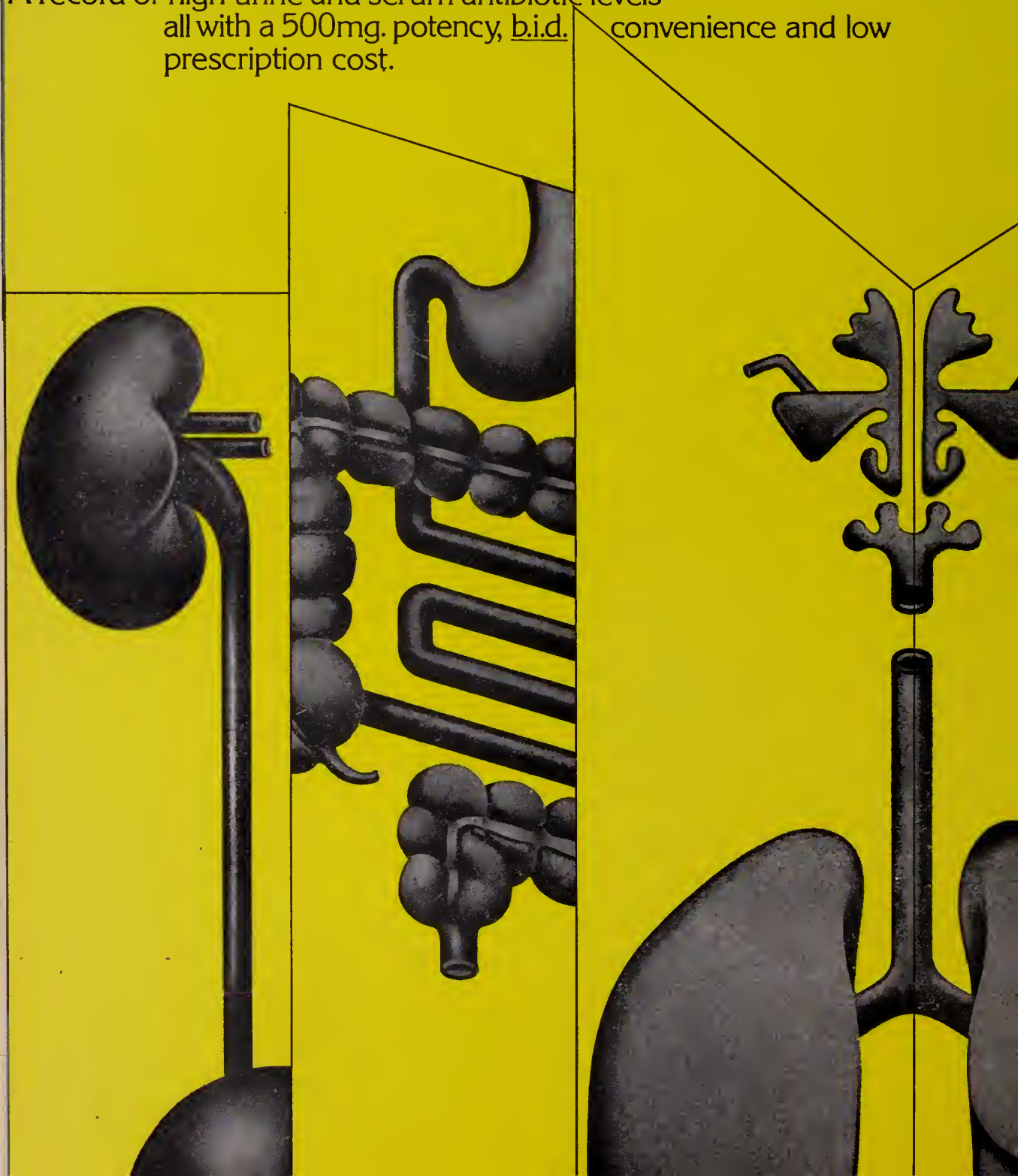
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A record of years of dependable broad-spectrum activity.

A record of high urine and serum antibiotic levels all with a 500mg. potency, b.i.d. convenience and low prescription cost.



Tetrex® bidCAPS®

(500 mg. tetracycline phosphate complex)

For complete information consult Official Package Circular.
(3) 4/2/70

Indications: Infections of respiratory, gastrointestinal and genitourinary tracts and skin and soft tissues due to tetracycline-sensitive organisms. In staphylococcal infections, indicated surgical procedures should be performed.

Contraindications: Hypersensitivity to tetracyclines.

Warnings: Photodynamic reactions have been produced by tetracyclines. Natural and artificial sunlight should be avoided during therapy. Stop treatment if skin discomfort occurs. With renal impairment, systemic accumulation and hepatotoxicity may occur. In this situation, lower doses should be used and serum estimations may be necessary during prolonged therapy. Tooth staining and enamel hypoplasia may be induced during tooth development (last trimester of pregnancy, neonatal period and childhood).

Precautions: Mycotic or bacterial superinfections may occur. Infants may develop increased intracranial pressure with bulging fontanels. Cases of gonorrhea with a suspected primary lesion of syphilis should have darkfield examinations before receiving treatment. In all other cases where concomitant syphilis is suspected, monthly serological tests should be performed for a minimum of 4 months.

Adverse Reactions: Glossitis, stomatitis, nausea, diarrhea, flatulence, proctitis, vaginitis, dermatitis, and allergic reactions may occur.

Usual Adult Dose: One Gm./day in 2 or 4 equally divided doses. Continue therapy for ten days in Group A beta-hemolytic streptococcal infections. Administer one hour before or two hours after meals.

Supplied: Capsules—250 mg. in bottles of 16 and 100. bidCAPS—500 mg. in bottles of 16 and 50.

A.H.F.S. Category 8:12

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SPECIFICALLY, to thin and liquefy tenacious mucous and facilitate its removal because . . .

"Of the agents which influence respiratory tract fluid, only two are worth considering, the iodides and glyceryl guaiacolate."

Drugs of choice 1962-1963, Modell p. 478

G.G.I. contains BOTH Glyceryl Guaiacolate and Calcium Iodide and AVOIDS the usual interfering ingredients present in many expectorant preparations, e.g. antihistamines, decongestants and antitussives.

G.G.I. Expectorant . . . when dry unproductive cough is clinically significant especially in asthma, emphysema and chronic bronchitis.

FORMULA: Each 5 cc contains

Glyceryl Guaiacolate	100 mg
Calcium Iodide, Anhydrous	150 mg
Alcohol 5%, in a tasty base.	

DOSAGE: As an expectorant: Adults: One or two teaspoonfuls every two to four hours. Children 6 to 10: Half to one teaspoonful every two to four hours. Children under 6: As directed.

INDICATIONS: To thin and increase bronchial secretions, especially in Asthma, Chronic Bronchitis and Emphysema.

PRECAUTIONS: Evaluate thyroid function and watch for symptoms of iodism during prolonged therapy. If iodism (skin rash, parotitis, ocular irritation) occurs during prolonged therapy, discontinue use.

CONTRAINDICATIONS: Certain cases of thyroid disease where iodine is contraindicated, known iodide sensitivity, pregnancy (where fetal thyroid depression may occur).

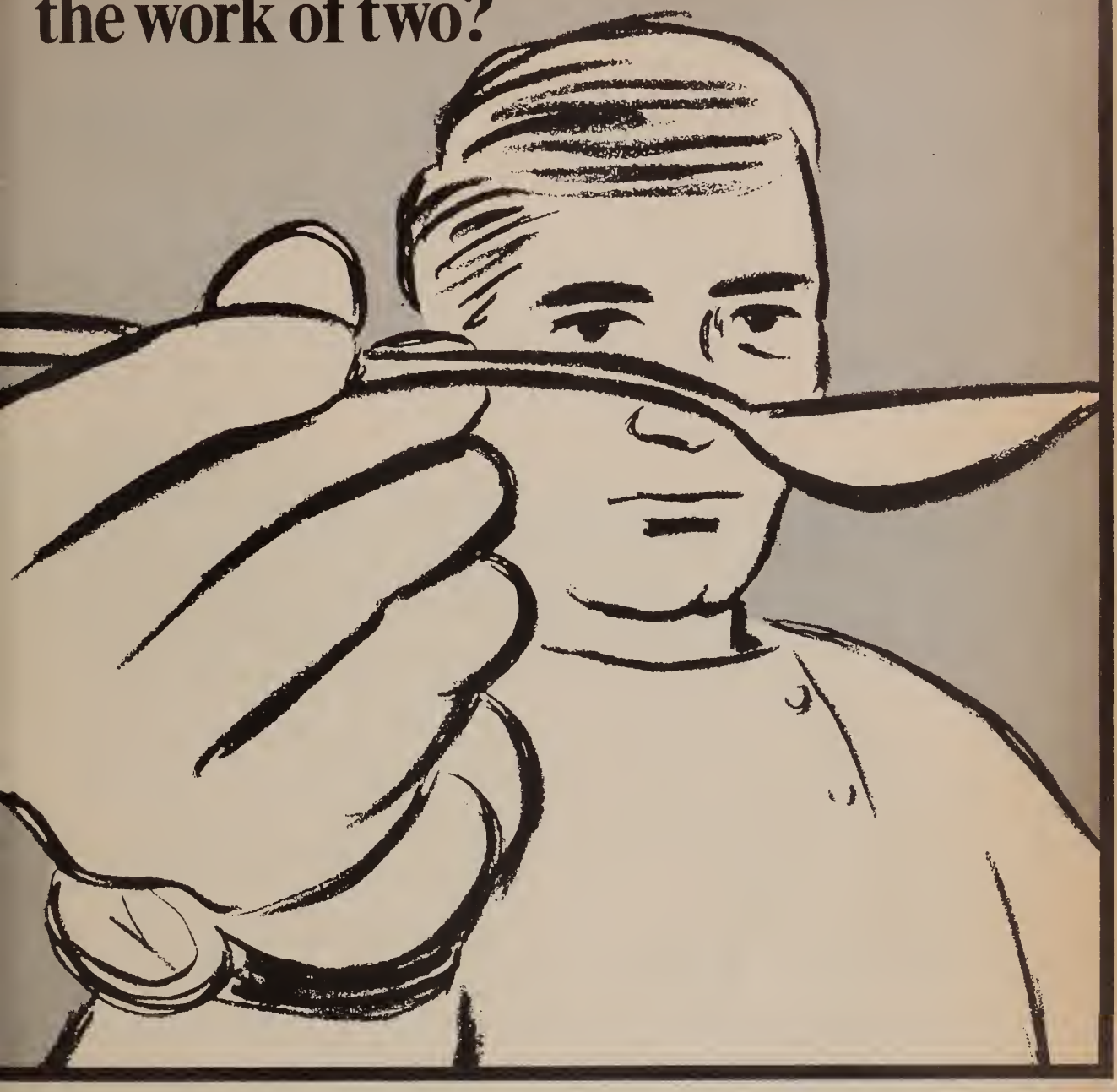
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Efudex®
(fluorouracil)
cream/solution

In the treatment of solar/actinic keratoses –
An alternative to cold, fire and steel

2/23/68
Before treatment with 5% 5-FU cream. Patient R. G., 78 years old, shows extensive skin changes due to weathering and severe solar/actinic keratoses.

3/26/68
Following one month of therapy. Intense erythematous reaction is seen at sites of keratoses. Normal skin has not reacted. Some areas which had reacted initially have undergone healing despite continued topical application of 5% 5-FU.

6/11/68
Ten weeks after discontinuance of therapy. All areas have healed completely. Residual mild erythema remains in some areas. This patient also had seborrheic keratoses which, as expected, have not reacted. There is no evidence of residual lesions or recurrences.



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An alternative to conventional therapy

Efudex (fluorouracil) offers the physician a topical alternative to cryosurgery, electrodesiccation and cold-knife surgery in the treatment of solar/actinic keratoses. It is effective, comparatively inexpensive and especially well suited for treatment of these multiple lesions. Important, too, is the highly desirable cosmetic result. Clinical experience demonstrates that treatment with Efudex results in an extremely low incidence of scarring.*

Highly effective

In clinical trials, depending on the dosage form and strength used, complete involution occurred in 77 to 88 per cent of lesions following treatment. The rate of recurrence was low, ranging from 1.7 to 5.6 per cent up to a year after completion of therapy. When new lesions appeared, repeated courses of Efudex therapy proved effective.*

Predictable therapeutic response

Two to four weeks constitutes a typical course of Efudex therapy. The response is usually characteristic and predictable. After three or four days of treatment, erythema begins to appear in the area of keratoses. This is followed by an intense inflammatory response, scaling and occasionally moderate tenderness or pain. The height of the inflammatory reaction generally occurs two weeks after the start of therapy, and then begins to subside as treatment is stopped. Within two weeks of discontinuing medication, the inflammation is usually gone. A mild erythema may remain for two or three months before gradually receding. Since this response is so predictable, lesions which do not respond should be biopsied.

Two strengths—two dosage forms

Efudex is available as a 2% or 5% solution or as a 5% cream. It is applied twice daily by the patient with a nonmetal applicator or suitable glove.

Before prescribing Efudex, however, two important considerations: First, please consult the complete prescribing information for precautions, warnings and adverse reactions. Second, advise the patient that treated lesions should respond with the characteristic but transient inflammation. A positive sign that Efudex is working for them.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Efudex Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)-aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Efudex Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing-cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).



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*Data on file, Hoffmann-La Roche Inc., Nutley, New Jersey.



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THE JOURNAL OF THE Florida Medical Association

JANUARY 1971 • VOLUME 58 • NUMBER 1

This Issue — Medical Education

CLYDE M. COLLINS, M.D.

"It takes four years to get a college degree because it's always been that way" is no longer a tenable hypothesis, opined the Carnegie Commission which recommended that education be brought in tune with the present era and conditions. After a lengthy study the Commission concluded that the time spent in undergraduate college education can be reduced roughly by one fourth without sacrificing educational quality. The same reasoning has been appearing in inquiries of medical education by educators, organized medicine, legislators, students and the public.

Early last year in an issue of "Florida Family Physician," 12 provocative articles on medical education were introduced by the premise that "physicians too busily engaged in improving their own skills with concurrent limitation of their practices are decreasing services rendered. The resulting extinction of the GP," the statement continued, "is producing a major disaster in the delivery of medical care." The solution recommended was that Florida graduate more general practitioners.

This publication of the Florida Academy of General Practice along with suggestions by Harold Parham, F.M.A.'s Executive Vice President, stimulated an issue of the Journal as a report on medical education to all practicing physicians of Florida. Dr. Kenneth Penrod, Vice Chancellor of the Board of Regents, was requested to comment on methods of increasing the number of students at our three medical schools and the deans of the schools were asked to outline the plan for implementation of such a program in their school.

Whether those of us in private practice have any interest in medical education or not, we should become aware that there is a ferment going on in the old alma mater for things just are not what they used to be. Whether we like it or not, the present system of medical education, though perhaps scrutinized less by physicians, is being scrutinized more by the public. Questions being asked are: Is medical education doing all it can to meet the burgeoning demands of society? Is it truly relevant to our health needs? Do medical educators have vision enough and organizations flexible enough to keep pace with accelerating developments, not only in medicine but in other sciences? Perhaps too enamored with the status quo, too concerned with our economic status or too preoccupied with sick people, we fail to recognize the need for adequate provisions of improving education or to keep abreast of what is becoming known as the explosion in medical knowledge.

The effectiveness of the physician in providing medical care is the responsibility of a medical school, the instrument which translates the art and science of medicine into service through the physician-student. The relationship between education and professional competence is complex and not precisely understood. It involves the physician's perception of himself. The physician is trained to be competent but confounding in the search for understanding is the question: Competent to do what? What is the role of the physician today in face of the ever increasing and

variable public demands and what will it be 20 years from now? Obvious is unevenness in the proficiency level among practicing physicians; yet courts have ruled that physicians must be able to provide service at a national level of competence consistent with their level of training. Periodic relicensure is frequently discussed while peer review from HEW and local medical societies, stimulated by socioeconomic aspects, has other implications for evaluation of medical proficiency. The AMA Physicians Recognition Award, described elsewhere in this issue, is an incentive to maintain proficiency which some state medical associations are now requiring for membership renewal. Recertification has long been a requirement of the American Academy of General Practice and is being considered by other specialty boards.

In line with new trends in medical education, innovations are being tried in schools all over the country where speed of movement through the curriculum has become variable. From a four year to a three year program in some schools; others provide special programs for disadvantaged students under which extra time will be permitted for slower learners. Elsewhere students may withdraw temporarily to devote a year or more to special studies. The curriculum is being radically changed with electives more prominent, particularly in the clinical years. As discussed elsewhere in this issue, integration of undergraduate and graduate training with multiple track curricula gives a career choice to each student for tailormade educational and postgraduate training. In a six year integrated program, a student could become eligible for a license to practice medicine one year after he is allowed to vote, but at what age does he become a physician and when should he receive the M.D. degree?

One thing does appear certain. The day is past when the medical school exists as a separate educational unit with a rigid standardized curriculum. It is becoming a medical university with broader, more diversified, geographically dispersed programs which will include graduate specialty training in its own hospitals. Medical education should insist on a continuity of responsibility from premedical, undergraduate, graduate and continuing medical education. Medical education must be attractive, active and rewarding. It must be evaluated and re-evaluated and designed in terms of patient care outcome.

Physicians critical of medical schools say: "They have contributed little toward improvement of the practice of medicine and have very little understanding of what comprehensive medicine is while the newest approved specialty, Family Practice, has been thwarted in every attempt to gain the prestigious rank. Its eventual success and attaining of approval was only because of legislative fiats or large federal grants directly contributed for general practice training." It does appear that exposure of medical students to good practitioners as well as allowing them to work in well staffed community hospitals with excellent facilities has been neglected too long.

In the past 25 years, medical schools have been built in nearly every country in the world but disenchantment has often followed, for patterned after our schools the curriculum has been inappropriate for some developing countries. They are saddled with institutions of education and types of practice they can ill afford. Maldistribution of health resources is worldwide and is woefully imbalanced with health needs. Issues in medical education are remarkably universal for students everywhere are challenging the form and content of their education and questioning its relevance, its basic purposes of training and its methods of obtaining the manpower to deliver health services. Schools begun outside this country in the last decade place strong emphasis on preventive medicine, integrating it with curative medicine, stressing the importance of training general physicians and discouraging specialization.

The Association of American Medical Schools in a recent meeting endorsed a report from the Carnegie Commission which called for extensive reforms in medical education, development of new health education centers and the devising of new methods to alleviate the crisis in health care. The AAMC called for a medical school expansion program to produce 50,000 more physicians by the early 1980's, proposing expansion of existing schools and the development of 12 new ones. It also recommended increasing the number of medical school entrants from 10,800 this year to 16,400 in 1978. The association further recommended the training of at least 3,500 associates and assistants per year, creation of a national health manpower commission, establishment of federal subsidies of up to $4,000 per year for every house officer, provision of student loans and various federal grants to institutions in financial distress. The AAMC was fully in accord with the critical role of the government to the tune of some $6 billion in supporting medical educating without

diminishing the continued request for other public and private support.

Aware of the need to organize our practices to produce more units of service per unit of time, we should look critically at trained assistants, selected and taught by doctors. Under supervision, they can do many things formerly done by the doctor. With the doctor they can produce 1 to 1½ times the service previously produced by the doctor alone without any sacrifice in quality. In discussing physicians' assistants, three categories have been described, each depending upon appropriate medical training, experience, individual capabilities, and responsibilities required. Essential educational requirements for each classification would vary depending upon the degree of responsibility and skill needed; some requiring considerable teaching by physicians whereas others could be trained outside a medical center. It does appear that large segments of responsibility for health service can be delegated to auxiliary personnel. Then would the role of the physician be redesigned to one of manager-consultant?

A medical advisory committee for the University of Florida College of Medicine has been in operation since 1968 and a recent report by its chairman, Dr. Jere Annis, was mailed to all members of F.M.A. The committee noted improved relations between private practitioners and the College of Medicine, improved communications between local medical societies and the College and improved liaison between the University and other state agencies. Mention was made of the progress of the University in the area of community medicine in the established clinic at Mayo and in a voluntary health clinic in Gainesville. The only negative statement was lack of post-graduate programs for the state at large.

Finally, a question arises as to why educational standards should be based on the student's acquisition of a certain set of facts rather than on an approach to knowledge or ability to solve problems. Since prestige in medicine appears to be related to sophistication of practice and not based on ability to satisfy the real needs of the local society, perhaps partly responsible is the educational misdirection as to the lack of social concern as well as the hospital-based model of education which is more exciting to professors and to students.

As someone once said, applying to education in general but to medical education as well: "We must learn to honor excellence in every socially accepted human activity, however humble that activity, and to scorn shoddiness, however exalted the activity. An excellent plumber is infinitely more admirable than an incompetent philosopher. The society which scorns excellence in plumbing because plumbing is a humble activity and tolerates shoddiness in philosophy because it is an exalted activity will not have good plumbing or good philosophy. Neither its pipes nor its theories will hold water."

This report on medical education in Florida, in the papers which follow, is from the minds of dedicated and conscientious educators to whom we are indebted.

It is to be regretted that reports from all aspects of medical education, as it involves the practicing physician, could not be included.

▶ Dr. Collins, 1503 Oak Street, Jacksonville 32204.

Education is a companion which no misfortune
can decrease, no crime destroy, no enemy
alienate, no despotism enslave; at home a friend,
abroad an introduction, in solitude a solace,
in society an ornament. It chastens vice,
guides virtue, and gives grace and government
to genius. Education may cost financial
sacrifice and mental pain, but in both
money and life values it will repay every
cost one hundred fold.

Author unknown

Florida's Plans for Decentralized Medical Education

Kenneth E. Penrod, Ph.D. and Louis C. Murray, M.D.

For the half century since the Flexner Report, medical education in the United States has remained relatively unchanged. While there were 160 medical schools operating in 1910, Mr. Flexner's crusade resulted in reducing that number by about 100. Since that time, development of new schools and expansion of the old has not permitted physician production to keep pace with the nation's increasing population. This created no great concern, however, until the late 1950's when a special committee of the U.S. Public Health Service pointed up an impending crisis and called for an expansion in physician production by at least 50% within a 15 year period.

A decade ago (class of 1960) there were 7,081 physicians graduated by 85 medical schools in the U.S. In 1970 there were 8,367 M.D. degrees awarded by 87 medical schools. Meanwhile, there is a significant "tooling up" under way, as is indicated by the estimate that in the fall of 1970 some 11,100 students were admitted to 103 medical schools. If the goal of a 50% increase in 15 years (from 1959) is not reached, it will be closely approached.

A number of new medical schools have been started in the last few years. The cost of starting a new school has varied considerably with the program, but in some cases has exceeded $100 million. While in theory as much as two thirds of the cost for a new school can be obtained from the Public Health Service, in practice none of the more costly projects has begun to approach this maximum theoretically allowable. To date the most any new school has actually received in federal funds has been $23.4 million. Since very few states or private sources have elected to underwrite the cost of such a major development from their own funds, medical educators have found themselves caught between the pressure for expansion in physician graduates and unavailability of funds to produce the facilities for that purpose. This fact has forced critical evaluation of new and alternative ways to achieve the desirable goal of greater physician production.

Dr. Penrod is Vice Chancellor for Medical and Health Sciences, Office of the Board of Regents, and Dr. Murray is Vice Chairman of the Board of Regents, State University System of Florida.

Medical Education Patterns

No implication is intended here that all advances and innovations of medical education have sprung from duress. To the contrary, much imaginative thinking has been taking place both in medical education and in higher education generally. Reference to some of the pertinent literature has been made elsewhere.[1]

In July 1965 a highly significant conference held at Endicott House resulted in the publication, "Endicott House Summer Study on Medical Education."[2] To quote briefly from that study:

> Much of the education now offered—and required—in medical schools should be moved back into the undergraduate years. In particular, there has been recently a movement toward far more sophisticated secondary school education in the natural sciences and mathematics; this has led to a general improvement of undergraduate courses. In many universities and in the better colleges, an undergraduate now encounters the natural sciences and mathematics in a far more sophisticated form than that of parallel courses offered in medical schools. Two conclusions might be reached from this: First, the colleges can be relied upon eventually for much of the education that is now presumed to take place in medical schools; and second, those aspects of science education that must inevitably remain with medical schools must be prepared and presented in a form far more mature and pertinent than that which now prevails.

The relationship of the preclinical, or basic, sciences of the medical school curriculum to the clinical teaching has been called into question in a number of ways recently. Historically these particular biological sciences were incorporated into the medical school curriculum for the reason that their traditional content was considered fundamental to the practice of medicine and by their inclusion in the medical school curriculum assurance was provided of a relatively uniform understanding.

Meanwhile, as all biological knowledge has expanded and matured, that portion traditionally a part of the medical school curriculum has become less and less distinguishable from that which is taught at the graduate and professional level to other university students.

Medical school basic science faculties themselves are divided on the issue, but many are seriously raising question about their future affiliation with the clinical disciplines. The American Physiological Society at its annual spring meeting in 1969 devoted a major session to the subject "Should Physiology Training be Divorced from the Medical Curriculum?"[3]

The basic science faculty is not alone in its critical evaluation of the present day role and scope of medical education. Clinicans, too, have long been dissatisfied with the clerkship experiences of the fourth-year medical student juxtaposed as it is between a similar experience in the third year of the curriculum and the internship. In consequence, a strong movement is afoot now to open up the fourth year to more varied experiences, usually on an elective basis to allow the student to indulge his developing preferences.

Currently, much ferment is taking place in medical education. Nearly every medical school in the country is in the process of making changes of varying degree in its educational patterns. While change is the order of the day, in each instance that change has to be structured around the local strengths and weaknesses, and especially the available resources. Hence there is much variability. We in Florida possess many valuable resources that have not heretofore been incorporated into medical education. In the plan to be described, it is envisaged that much of this potential will be tapped.

Florida Plan for Medical Education

Fundamental to the Florida Plan for Medical Education is a reapportionment of the time and effort spent in the various components of medical education. In concert with the thinking of many medical schools in the United States, the University of Florida has recently embarked upon curricular change wherein the preclinical science instruction (except pathology) is completed within a single year. Similar thinking is taking shape within the new College of Medicine at the University of South Florida. The question follows logically: In the present state of development of these sciences in a University offering graduate degrees in biological, physical and social sciences, cannot adequate preparation be provided a student there, thus allowing him to enter the specialized medical curriculum at the clinical level? There is growing evidence in support of an affirmative answer to this question. It is obvious immediately that such a plan would automatically permit significant increase in the number of students who could be accommodated to this level of professional education.

The combined resources of Florida State University (FSU) and Florida A&M University (FAMU) in Tallahassee offer the opportunity to begin such a program at once. In development of this "alternate pathway" it is not conceived that there will be a separately identifiable medical school year in Tallahassee, but rather that the preclinical medicine preparation will be a continuum from the first years of college to entry into the second, as opposed to the conventional first, year of the medical school. The length of time for completing these requirements may well vary with the individual but in the main will likely consume four or five years post-high school. Biochemistry, for instance, might be taken as early as the third year with some of the liberal arts courses continuing into a fifth year. In any event, it should be possible to define the requirements for the second year entry as carefully as they are now for the first year, leaving to the university the method of achieving that proficiency.

Already many of the courses necessary for such a program are being offered at FSU and FAMU. Thus, relatively modest expansion of faculty and equipment will be necessary to accommodate as many as 50 students per year reaching eligibility for second-year entry into medical school.

The question of selection and promotion of students preparing for second-year medical school has received much discussion. There is general agreement that a student must not be carried to this point without assurance of an opportunity to continue his pursuit of the medical degree. The faculty and administration of the medical school at Gainesville have indicated a willingness to delegate the responsibility for selection and certification to the combined FSU-FAMU faculty. It is anticipated that sufficient clinical faculty and facilities can be developed at Gainesville, Tampa and perhaps Miami, so that no limitation will have to be imposed upon the number who successfully complete such a preparatory program. It is probable that the rigor of the program will tend to eliminate all but the proven capable candidates for medicine.

It should be emphasized again that this plan presupposes the entire sequence of courses will be taken on one campus. No provision is being made nor is one anticipated for transfers into the program for one or two years as an alternate route

to medical school, although junior college transfers might well fit into the sequence of courses without loss of time.

Once the principle is established and accepted that students can be prepared adequately for clinical medicine by routes other than the conventional medical school preclinical departments, it should be possible to develop similar programs on other campuses. It should be apparent, however, that course offerings at the preclinical medicine level are graduate-equivalent and can best be established on those campuses where such graduate instruction is already being provided. In any event, each new program will have to be carefully constructed and evaluated to assure continued high quality among our medical graduates.

Role of Medical Schools

In this plan the medical schools themselves remain the keystones of the medical education program. The importance of the earliest clerkship experiences for the developing medical student cannot be overemphasized. It is at this point that the student learns how to gather data and to utilize resources available to him for the practice of medicine. It is also at this time that his methods of thinking, attitudes, ethics and moral values begin to take shape. It is at this stage that the relatively large amount of time and attention of the full-time, academically trained teacher is most valuable, as the student must learn the fundamentals of the physical examination, history taking, and the use of the clinical laboratory and the library. This is a period of intense learning for the student with little contribution on his part but with much contribution on the part of the instructor.

As medical school curricula are taking shape, it is visualized that the second year will begin with an introduction to clinical medicine together with a study of pathology. This period of medical education will then progress into more responsible patient-care experiences in the form of clerkships.

More on the plans of the medical schools for teaching students admitted through the traditional first-year program as well as for students admitted for clinical instruction only will be found elsewhere in this issue in articles prepared by the deans. Suffice it to say here that developments now are taking place sufficiently parallel at the University of Florida and at the University of South Florida medical schools to permit optional transfers. At the moment at least the curriculum at the University of Miami School of Medicine does not meet this format, but great interest has been expressed in the plan by the faculty of that school and a desire has been expressed to find a way to participate in the statewide program.

Obviously a key question for the medical schools is how can significant numbers of additional students be accommodated for clinical instruction? The answer to this can be found both in the development of additional clinical teaching resources, utilizing off-campus facilities, and in the development of a fourth-year elective program whereby many students may spend varying periods of time at off-campus institutions.

Florida is blessed with a number of excellent clinical teaching sites. In recognition of the strength to be derived from the pooling of resources in a community, both for health care delivery and for education, several Florida communities are becoming so organized. Perhaps the three most advanced in this movement at the present time are Jacksonville, Pensacola and Orlando. In such a setting, for example, the presence of the nucleus of full-time clinicians can assure the availability of time and attention to the medical student when he needs it, together with a general marshaling of resources to his advantage. This nucleus faculty then can call upon the significant help available from the private practitioners in the area who wish to devote a portion of their time and energies to teaching, either as paid part-time or as volunteer faculty. It is strongly to be hoped that different communities and clinical groups will organize their resources in a way to emphasize their local strengths with resulting wide selection possibilities for medical students. Thus one area might choose to emphasize certain specialties, another the group practice approach, still another the cluster of solo practitioners around a hospital, and other permutations of health care delivery.

Exposure of medical students to primary care opportunities, and especially to those physicians who are providing primary care, at an early stage in their career is a subject of much discussion, locally and nationally. There is room for much imaginative thinking in ways of establishing family care practices that can capture the imagination and lasting interest of medical students. The opportunities for significantly influencing the thinking and career patterns of medical students would appear to be enhanced by the development of off-campus teaching programs designed around family practice centers as opposed to the attempt to

establish such programs within the teaching hospitals.

The present dichotomy between the pre- and post-M.D. education phases is a national concern. Likewise the internship year, as we have known it, is clearly disappearing. Hence the attractive opportunity is now presented on a community basis to establish a medical education program as a continuum for the senior medical student to be carried through to Board eligibility. By folding the internship year into that continuity, time can be saved and there would be advantages to the student, especially the married student, to locating in one place for that period of time. Again if different communities were organized with different objectives, a healthy competition for students could develop. The possibilities are almost limitless.

Conclusion

The basic fundamentals of the plan as outlined are sound, both pedagogically and sociologically. There are no major impediments to its full development. Only an outline of the plan has been presented and many details are yet to be worked out; however, it is obvious that there is much room for imaginative thinking and contribution. It is also obvious that, by the utilization of existing resources, the number of medical students that can be accommodated can be enormously increased at a cost that is modest in comparison with that of development of new freestanding medical schools. This is not to say that all can be achieved at no cost. There is reason to believe, however, that the cost effectiveness of this plan designed to greatly increase the production of physicians while at the same time favorably influencing the entire health care delivery system of our state will stand scrutiny.

In the discussion of new ways to increase the output of physicians in Florida the impact of expanded input into the traditional first-year classes of the existing medical schools should not be lost sight of. For instance, the University of Miami has been expanding its intake and now its output of physicians in a meaningful way in recent years. In the last three years the incoming class has been increased by 33 students. The University of Florida plans an increase of similar numbers upon completion of its building program now about to get under way.

As the plans for the increased production of physicians within the state progress, together with the impact of expanded and more attractive house officer programs and a somewhat relaxed licensure examination, the prospects for a significant increase in the number of physicians for Florida were never better.

But how do we improve distribution?

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Expansion of Medical Education at the University of Florida

Emanuel Suter, M.D.

Recent social, economic and scientific developments have brought into sharp focus merits and inadequacies of our medical and health care delivery system. The solutions to these multifaceted problems must be found through carefully planned programs initiated from various quarters such as organized medicine, academic health centers, voluntary agencies, and government at the local, state and federal levels. The timely releases of the special report and recommendations by the Carnegie Commission on Higher Education entitled "Higher Education and the Nation's Health" and of the "Bicentennial Anniversary Program for the Expansion of Medical Education" by the Association of American Medical Colleges provide broad and specific guidelines for planning and action. This article will outline briefly the extent to which the College of Medicine at the University of Florida is prepared to make significant contributions toward providing more physicians who represent a pivotal factor in any programs aimed toward betterment of the nation's health, with the necessary preparation for the rendering of optimal health care delivery.

Dr. Penrod has outlined a plan for increasing the volume of medical education in the state of Florida by mobilizing resources within the State University System. Without entering into a debate as to the merits and shortcomings of individual components of Dr. Penrod's plan, the following is an account of the program of the College of Medicine at the University of Florida aimed at harnessing and developing academic resources in the institution and community for the broadening of medical education. It should be noted that the faculty of the College of Medicine has developed programs for improvement and expansion which are in tune with the previously cited national publications. These programs were approved by the Board of Regents and in essence adopted as a model for the "Florida Plan."

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Program of Expansion at the University of Florida

Over the past decade the administration and the faculty of the College of Medicine have recommended repeatedly that the facilities of the J. Hillis Miller Health Center be expanded to permit an increase in the medical student enrollment and to provide added strength to the College of Medicine at Gainesville to serve as a focus for an expanded regionally-based educational program in medicine. In a few months ground will be broken for facilities which will permit the enlargement of the entering medical class to at least 100 students, the initiation of a dental program involving ultimately 60 entering students, and the expansion of the programs in nursing and allied health professions. Concurrent with this expansion, the faculty of the College of Medicine has revised the educational programs offered to medical students with the following objectives in mind:

To provide the student a greater flexibility for career choice.

To offer opportunities for shortening the length of educational experience at the College to obtain the M.D. degree.

To improve articulation of the M.D. degree program with premedical and postgraduate educational programs, hopefully resulting in a saving of time.

To permit more extensive integration of the basic medical sciences with clinical science teaching.

To provide students with experience in comprehensive medical care as rendered in the community by primary physicians.

Since September 1969, when the new program was initiated, we can judge that some of these changes are successful and will permit us to reach the set objectives. A pilot program for the integration of undergraduate and graduate education in orthopedic surgery is in the planning stage. Students enrolled in this program easily can shorten their educational period by six to eighteen months.

Since the VA Hospital opened its doors in the fall of 1967, the UF-VAH affiliation has added

significant clinical resources to the J. Hillis Miller Health Center, resources which are integral components of the Center's educational planning.

As a consequence of these developments, the College of Medicine will be in a far better position in the 1970's for providing educational leadership not only for intramural but also extramural programs.

Association With FSU-FAMU

Upon the initiation of a small faculty group, Florida State University (FSU) and Florida A&M University (FAMU), under the leadership of Dr. H. Winter Griffith, planning was begun in January 1969 for a joint program in the basic medical sciences between FSU, FAMU, and the University of Florida. These activities culminated in a proposal approved by the Board of Regents in July 1970 which calls for the integration of basic science programs with the preprofessional programs at FSU and FAMU. Students, after successful completion of the program at FSU-FAMU, may transfer without formal admission into the clinical program at the University of Florida. Such a transfer can occur after four, five or six years of study at FSU-FAMU depending on the qualifications of the students. The students may save a year in their total medical education as compared with standard programs depending on the time of transfer. It is anticipated the program will be able to accommodate 40 to 50 students who will enlarge the graduating class at the University of Florida up to 145 students. This program at FSU and FAMU conceivably could be expanded to comprise students who would transfer to other clinical programs in the state, either at the University of South Florida or at the University of Miami.

Association With the Jacksonville Hospitals Educational Program

The foresight of Dr. James Borland Sr. from Jacksonville led to the establishment of the Jacksonville Hospitals Educational Program (JHEP) in 1958 with the purpose of improving the quality of and expanding the program in graduate medical education in the Jacksonville area. Under the directorship of Dr. Max Michael and Dr. Karl Hanson, JHEP developed into an important resource for medical education while strengthening its relationship with the College of Medicine at the University of Florida. A formal agreement of association or affiliation between the J. Hillis Miller Health Center and JHEP was approved by the Board of Regents in November 1969. This association facilitates access to patient care facilities and the professional talents in Jacksonville for the educational programs in Gainesville. The objectives of the program are to enlarge and improve programs in graduate medical education, to provide opportunities for clinical experience to medical students at the University of Florida, and to act as a center for continuing medical education for the physicians in the area. The association between JHEP and the J. Hillis Miller Health Center also utilizes Jacksonville resources for the educational programs of the other colleges of the Health Center such as Dentistry, Nursing, Health Related Professions, and Pharmacy.

Association With Other Educational Programs

Anticipating an ever-widening sphere of responsibility, the College of Medicine is strengthening its ties to programs established in other medical communities such as Pensacola, Tallahassee and Daytona Beach. At the present time these joint programs comprise only limited activities or

TABLE 1.—PROJECTED STUDENT ENROLLMENT AT THE UNIVERSITY OF FLORIDA COLLEGE OF MEDICINE*

PROGRAM	1970	1971	1972	1973	1974	1975
M.D. STUDENTS						
University of Florida	258	275	294	339	401	452
Florida State University	5	15	30	40	45	45
TOTAL	263	290	324	379	446	497
GRADUATE	73	81	89	97	101	101
GRADUATE—Other Colleges (FTE)	17	19	21	23	24	24
HOUSESTAFF & CLINICAL FELLOWS	279	287	339	361	384	397
POSTDOCTORAL CLINICAL FELLOWS	12	13	15	16	17	18
POSTDOCTORAL BASIC SCIENCE FELLOWS	14	15	16	18	19	20
CONTINUING EDUCATION (FTE)	22	23	24	25	26	27
TOTAL COLLEGE OF MEDICINE	680	728	828	919	1017	1084

* Headcount except where indicated as FTE.
In addition to programs for professional students, the College of Medicine offers basic science courses for the other health profession students, training opportunities for technical personnel, and is exploring the possibility of a training program for physician's assistants or their equivalents.

are in the stage of planning. The strongest relationship exists with the Pensacola Educational Program. Other associations involve the Tallahassee Memorial Hospital, Halifax District Hospital, and several of the Orlando hospitals. In all instances local interest and initiative, together with the creation of an organization permitting local leadership, represent the driving force.

Conclusion

Table 1 shows the anticipated number of students to be enrolled in various programs of the College of Medicine during the 1970's. Clearly the planned increase of student numbers would not be possible without integration with community resources. It is the desire of the faculty of the College of Medicine to provide educational experience of the highest quality to the students accepted into these programs with the conviction that only the best is good enough for Florida. To be successful in its endeavors, the College of Medicine needs the support of all physicians in the state.

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Medical Advisory Committee

University of Florida College of Medicine:

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Henry M. Yonge, M.D., Pensacola
Robert E. Zellner, M.D., Orlando

Education does not mean teaching people what they do not know. It means teaching them to behave as they do not behave. It is not teaching the youth the shapes of letters and the tricks of numbers, and leaving them to turn their arithmetic to roguery and their literature to lust. It means on the contrary, training them into the perfect exercise and kingly countenance of their bodies and souls. It is a painful, continual and difficult work to be done by kindness, by watching, by warning, by precept and by praise, but above all—by example.

John Ruskin

A New Approach for Expansion of Medical Education in Florida

Impact and Implementation

Donn L. Smith, M.D.

The current rapid growth in Florida's population which will continue, according to projections, plus the shortage of medical manpower at the national level provide an appropriate setting for new approaches and substantive changes in medical education. New ideas involve intramural activities within individual schools; statewide programs and ultimately regional planning undoubtedly will develop.

Plans for expanding medical education in Florida include a college of medicine at the University of South Florida in Tampa. The impact of this institution will be felt generally throughout the state and particularly in the mid-Florida area.

Two areas of significance are certain. The first is production of additional physicians. In full operation the college of medicine will train 100 physicians each year. Whatever solutions are finally found to the problems of increasing health needs undoubtedly will require medical manpower in ever increasing numbers.

The second is the increased opportunity for our young people to enter the profession as a career choice. It may well be that opportunities for them will be a more significant long term contribution than simple increases in manpower. In any event, progress in expanding opportunities to study medicine will represent equal progress in overcoming manpower shortages. Either way, establishment of a second state institution for medical education is certainly justified as an integral part of the program of expansion in this important field of education.

Another extremely important facet will be the provision of an entry point for second year students from the new program projected for medical basic science education at Florida State University. Our curriculum is designed to facilitate admission of a substantial number of these students. This concept is in harmony with the overall plan for increasing the number of physician graduates.

Implementation of the expansion in medical education by establishment of a new college of medicine requires that funding be made available, faculty recruited, students selected, an effective educational program designed and facilities constructed. These activities have been undertaken since November 1969 and are well along toward operative status. The first class will be admitted in September 1971. This represents accelerated, but hopefully sound, implementation of a particular part of the state program.

The College of Medicine of the University of South Florida will be student-oriented with major emphasis upon teaching clinical medicine and its practice. We recognize our obligations in the production of new knowledge, i.e., research, but will proceed with the concept that we have a primary obligation to teach, accompanied by the opportunity to achieve research. By this pathway, we will attempt to establish and to develop a distinguished college of medicine as a visible and major asset within the state university system dedicated to the welfare of all citizens. The college of medicine will endeavor to create and maintain an environment which is truly responsive to the hopes of its students, to the needs of the community and to the wisdom and experience of the medical community.

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The University of Miami School of Medicine's Changing Patterns of Medical Education

E. M. Papper, M.D. and Bernard J. Fogel, M.D.

Many of the alternatives in curriculum revision which have recently been proposed throughout this country and abroad have been tried over the years in one form or another. Most are thoroughly considered in both the 1910 and 1925 Flexner Reports. In the latter report, Flexner described Medicine as a curious blend of superstition, empiricism and that kind of sagacious observation of which science is ultimately made. It is the variation of the portions of these ingredients that has, through the years, made us carefully re-evaluate the relevance of our training programs.

However, through the ages, the pendulum shifted from superstition to a rather narrow range of empiricism. It was appropriate and reasonable that from 1600 until the nineteenth century all medical training was by apprenticeship. As our observations became more systemized, refined and enlarged upon, we became discontented with superstition and empiricism. In the early twentieth century there evolved the essentials of the present method of teaching medical students and housestaff officers. There have really been few changes in the pattern of medical education since Flexner's first report in 1910. During the past few years, however, virtually every approved medical school in the United States has carefully reviewed and initiated changes in its respective educational programs. The following are a few of the reasons why an upheaval of long entrenched medical education systems was imperative.

First, great social demands are being placed on our medical schools. The people, as patients, are demanding better standards of health care for all, irrespective of social or economic class. The report of the National Advisory Commission on Health Manpower contains the following statement on the crisis in matters pertaining to health in the United States.

"The indicators of the health care crisis are evident by the long delays to see a physician for routine care: The lengthy periods spent in the well-named waiting room, then hurried and sometimes impersonal attention in a limited appointment time: The difficulty in obtaining care on nights and weekends, except through hospital emergency rooms: The unavailability of beds in one hospital while many beds are empty in another: The reduction of hospital services because of a lack of nurses: The needless duplication of certain sophisticated services in the same community: The uneven distribution of care as indicated by the health statistics of the rural poor, urban ghetto dwellers, migrant workers, and other minority groups which occasionally resemble the health statistics of a developing country."

Former Secretary of Health, Education and Welfare, Wilbur Cohen stated that medical schools must prepare the trainees for the coming era of social medicine. He went on to say that medical schools must become a major resource for dealing with the general social and health problems of society. Thus, the government has increasingly asked the medical schools to provide direct health services to the community. This aspect of medical education is in full accord with the feelings of today's students who appear to have an increasing desire to serve their community. Medical students and houseofficers, who have been traditionally conservative, have none the less been demonstrating increasing concern for the world outside the classroom and hospital. The Student Health Organization, the Student American Medical Association and the Association of Interns and Residents have been asking that the medical schools assume a leading role in improving this country's system of health care. They have advocated that the educational experience become more appropriate to contemporary needs. Finally, there has been a major impetus for medical schools to provide greater opportunities for the disadvantaged.

Unfortunately, the answer is not one of more equitable distribution and efficacious medical service alone. Although contested by a small minority, there is a physician manpower shortage in this country. No matter what role will be assigned to

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the physician in the future, the number of individuals requiring the services of the medical profession has increased markedly since 1945. Almost 8,500 physicians graduated from medical school in 1969. This number represents approximately 500 more than were graduated in 1967 and just over 1,000 more than completed medical school in 1960. Clearly the rate of increase of medical graduates has been too slow to keep pace with this country's population growth. To keep pace with this rate of increase, we would have to graduate over 20,000 physicians in 1970. Despite expansion of the number of medical schools to 103 and governmental pressure to increase enrollment in 1970, statisticians indicate that in 1975 the number of graduates from American medical schools will be little more than 10,000, a figure which barely doubles the number of anticipated deaths among physicians. It is obvious that simply increasing enrollment will not solve the problem. It is apparent that we must educate physicians to make more efficient use of their professional time and must completely re-evaluate the type of physicians that we should be turning out.

The burgeoning body of medical and scientific knowledge has been another factor in causing educators to review the system. The pattern of education established by Flexner was designed to prepare the physician to enter the practice of medicine immediately following graduation. Much that was taught was empirical. Little consideration was given to the long periods of post graduate education that all of us presently experience. Expansion of the field of knowledge was met by simply extending the curriculum. The explosive advances in science and technology which have occurred during the past 25 years make this form of education impossible.

The question of how responsive the medical schools should be to social demands is a valid one. Many thoughtful individuals feel that scientific medicine and social medicine may, to a degree, be incompatible. Others are concerned that a major expansion in enrollment will return medical education to a trade school atmosphere. Some feel that a total commitment to external pressure will keep us from pursuing our academic and intellectual missions.

Although many of the revisions in the University of Miami School of Medicine's educational system are a direct response to the factors mentioned above, the type of educational program that has evolved has been dependent upon the essential ingredients: The students, faculty and facilities.

STUDENT BODY.—During the past several years the quality of the entering class has improved markedly. Since 1964, we have doubled the number of applicants and expanded the freshman class from 80 to 115 (Table I). An idea of the improved quality of the students can be obtained by comparing the academic backgrounds of the accepted applicants in 1969 and 1970 (Table II). Last year the mean grade point average of the freshman class was 2.99; 50 percent had less than a 3.0 average. Eighty-three percent of those accepted to this year's entering class have higher than a 3.0 average; the mean grade point score being 3.16. The prerequisite course average is even higher, at 3.21. Both the Science and Quantitative scores on the Medical College Admission Tests are higher than previous years and comparable to the mean score of accepted applicants throughout the United States. Although only three-fourths of the entering class for 1971 have been selected, virtually every student has a grade point average which exceeds 3.5. M.C.A.T. scores are correspondingly high. Thus far, nearly every student accepted by our school has reserved a position in next year's class.

Another indication of the improved caliber of student is the low attrition rate. Of the 383 students who registered at the beginning of the 1969-1970 academic year, only three were lost to medical careers.

FACULTY.—There are 352 members of the full-time faculty of the University of Miami School of Medicine. This faculty is supplemented by 57

Table 1.—Previous Admission Data

Year	Number of Applicants	Accepted	Accept.us	Not Accept.	Enrolled	Female	Male
1964	357	128	100	217	80	4	76
1965	406	131	96	253	80	6	74
1966	418	132	103	271	80	14	66
1967	435	136	99	279	85	8	77
1968	503	144	107	337	85	9	76
1969	631	181	114	481	103	6	97
1970*	750	141	115	609	115	10	105

* Data up to April 1970.

Table 2.—Academic Background of Entering Classes 1969-1970

	1969	1970
GPA	2.99	3.16
% 3.0	50%	84%
MCAT:		
Quant.	580	588
Science	530	537

part-time and more than 800 voluntary members drawn from the local community. The degree of participation by the voluntary staff varies with the departments involved. Voluntary faculty is especially valuable to the Department of Medicine where they provide as much as 30% of the bedside teaching. In addition to the regular faculty there are 520 full-time post-doctoral (M.D.-Ph.D.) trainees who share in the teaching responsibility.

In August, 1969, the new Rosenstiel Medical Science Building was opened and contains three auditoriums which seat 136 each. Auditoriums have the latest audiovisual aids as well as closed circuit television. This summer the television network will be expanded to all teaching areas. Gross Anatomy laboratories can accommodate as many as 200 students; 140 actually attended the start of the freshman classes. There are multidisciplinary laboratories for both the first and second year classes. Each contains individual learning areas for 120 students. The medical library is immediately accessible.

CLINICAL.—The school is fortunate to have some of the best clinical facilities in the United States, Jackson Memorial Hospital has over 1,300 beds, 92 bassinets and 55 incubators. The Veterans Administration Hospital is directly adjacent to the School of Medicine and within the Medical Center complex. It contains 1,060 teaching beds and is an integral part of the University of Miami teaching program.

The National Children's Cardiac Hospital, of the University of Miami, contains a 14 bed Clinical Research Unit, a 22 bed general nursing unit for adults and children, a faculty out-patient Diagnosis Center and two floors of general research space. These facilities will undergo expansion during the next twelve months.

This fall marked the opening of the Mailman Child Development Center, which will house an extensive multidisciplinary approach to problems of mental retardation. Recently, negotiations were completed for an affiliation between the University of Miami School of Medicine and the Mt. Sinai Hospital of Miami Beach and Cedars of Lebanon Hospital of Miami.

In the past three years, the curriculum and the philosophy of the University of Miami School of Medicine have undergone major change. The ultimate goal is to create a framework of medical education in which a student may function to the best of his abilities and interests, and to educate men and women to be physicians of knowledge and compassion. It purports to teach them the science of medicine and the arts and skills of medicine with all of the social implications and obligations.

CURRICULUM.—Despite severe limitations imposed by understaffed preclinical departments and geographic separation of the basic science facilities until August, 1969, the school introduced during the past three years, many of the curriculum revisions leading to this school's ultimate education objectives. In 1967, there was an overall 22% reduction in the time allocated to the basic sciences; Gross Anatomy which was previously 308 hours is now 165 hours; Pathology was reduced from 424 hours to 245 hours; Microbiology 204 hours to 162 hours; Pharmacology 170 hours to 105 hours; Parasitology from 84 hours to 30 hours. Most of the time was taken from excessive laboratories and by eliminating irrelevant material. Despite the loss of hours, virtually every faculty member is in agreement that these courses improved considerably.

An entirely new course in Neuroscience, the prototype for all the interdisciplinary courses to be taught in the future, was introduced. Six weeks were devoted to the study of the nervous system. Three members of the Neuroscience planning committee (anatomist, physiologist and neurologist), attend every lecture, laboratory and clinical correlation conference. More than 40 other faculty members from 8 departments also participated. The reduction in time also permitted the introduction of meaningful clinical teaching.

The opening of our new Rosenstiel Medical Science Building permitted us to introduce many innovations. The Physical Diagnosis course, now called Introduction to Medicine was further revised and expanded. Emphasized in the course are not only the fundamentals of the history and physical examination, but the concept that the relationship which develops between doctor and patient during the course of medical evaluation and care is one of the most sensitive of human relationships. A total awareness of the patient's problems (i.e.,

social, economic, personal, etc.), is the objective of each experience. Sixty-four hours are devoted to this aspect of the course. This correlates closely with the Freshman Systemic Biology and Sophomore Pathology Programs.

The Sophomore year has been completely revised. From September until November, students are taught general concepts of Microbiology, Pathology and Pharmacology. Each Department prepares the students for the integrated Mechanisms of Disease course to be offered later in the year. During the month of December, we introduced a special program in Health Ecology, based on the premise that there is in the United States today a broad mandate to make first class health care available to every American. Granting this, it follows that medical schools have a crucial role to play in training physicians to become cognizant of some of the problems involved in accomplishing such a goal and in providing them with the skills they need to have greater impact in this regard.

The combined approach of the faculty will be in terms of comprehensive medical care and a better understanding of the health care system. Our perspective will have three major foci:

1) To help the students develop positive attitudes toward health care in people of different cultural backgrounds.
2) To explore the economic and cultural influences on health.
3) To examine the health needs of the various segments of the community and of the communities ability to deal with them.

In January, 1971, we will begin the Mechanisms of Disease course. This interdepartmental program will emphasize the disease processes which effect various organ systems. Basic science aspects of disease will be stressed and teaching will have a definite clinical orientation. Preventive Medicine will no longer be taught as an independent entity, but will be integrated into the systems approach. Introduction to Medicine, which has always been presented separately will also be a part of the new program.

In August of 1968, third and fourth year students began two years of uninterrupted clinical training. The core program was broken down as follows: Medicine—12 weeks; Surgery—12 weeks; Pediatrics—6 weeks; Obstetrics and Gynecology—6 weeks; Psychiatry—6 weeks; Neurology—4 weeks; Anesthesiology—2 weeks. After completion of the junior clerkship, students then began 38 weeks of what was the modified elective program.

The curriculum presently being taught provides a sound basis for more meaningful and imaginative revisions. Under careful consideration is a plan which would both shorten the formal medical school program and provide the student with a fourth year University Internship. Students would take 18 months of preclinical training somewhat similar to the present system. The majority of time would be devoted to systemic physiology and mechanisms of diseases. Emphasis would be placed on the use of conceptual tools and not on the dissemination of details. By modifying and reviewing the entire preclinical curriculum, it would be possible to achieve a coordination of subject matter.

Although students could begin their clinical training during their second year, drastic reduction in preclinical time would not be necessary. Time previously allocated to excessive and unimaginative laboratory exercises could be utilized more efficiently. Instead of the 20 week vacation each academic year, the student would be permitted eight weeks of free time annually.

Thirty-six weeks of clinical training would follow the preclinical course. This would be more flexible than past programs in that the students would not be required to take all of the clinical specialities. Finally, students would be offered 35 weeks of clinical electives integrated with basic sciences. These would be constructed so that each clinical subject taught would contain significant time for basic science lectures, seminars and laboratories. Although a few purely clinical electives would be included in the program, no attempt will be made to turn the elective program into a rotating internship.

After completion of the three-year program (which will contain virtually the same number of course hours as the present curriculum), several alternatives will be available to both the student and faculty. Some students would be required to take a fourth year. Most would be able to obtain their M.D. degree after a year of approved internship.

It is anticipated the majority of students will enter a University of Miami supervised internship and residency program which will, in effect, be an extension of the three-year curriculum. Finally, some students may elect to take further postgraduate training and will be able to earn their M.D. and Ph.D., degrees within five years.

This program, coupled with the admission of qualified three-year premedical students, could reduce by two years the present eight years needed to obtain the M.D. degree. More importantly, it would provide the student with a more realistic basis from which to continue medical training.

Also, under careful consideration is the establishment of a six year medical curriculum beginning with high school graduation. This program would involve teaching the present medical school Anatomy, Biochemistry Physiology, Microbiology and Pharmacology courses in place of assorted, less relevant science courses currently part of most premedical curriculum. We feel that there are several distinct advantages to such a program:

1) The efficiency of the output of the School of Medicine would be increased by adding two very productive years to the career of each of its M.D.s.
2) The M.D. student would see much more clearly than he does now the point at which clinical training would begin.

Under the present system, he spends four years in college, looks forward eagerly to the day when he enters medical school to, as he thinks, begin clinical medicine, only to find that a large part of his studies in the freshman year, i.e., the basic sciences, seems like a return to college. The frustration he feels reflects itself in an attitude to the basic sciences that clouds his interests in them.

Finally, we are considering an educational process which would begin with the entrance to college and end with the completion of specialty training. This would require that the School of Medicine have a considerable input into the development of the University curriculum. Internships and residency training would also have to come under the control of the School of Medicine. Although everyone is agreed that there is an essential core of information which must be taught to all medical students, such a program would have to be extremely flexible and permit multiple tracks for differentiation.

Since 1967, the University of Miami School of Medicine has nearly doubled its undergraduate enrollment and completely revised its medical education program. Next fall we anticipate another increase in the size of the freshman class. This year's admission data suggest that the school could probably double freshman enrollment without significantly compromising the entrance standards. Whether the curriculum revisions already introduced and those to be implemented in the near future will be successful cannot be determined at this time. They, however, stimulated the interest and enthusiasm of virtually every student and faculty member on the School of Medicine campus. We are convinced that the University of Miami School of Medicine can be responsive to society's needs and still maintain the scholarly atmosphere that has characterized its development during the past decade.

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Quo Vadis Family Practice Residencies?

William H. Hubbard, M.D.

In the past two years much has been accomplished for family practice residencies by establishment of the American Board of Family Practice, with also plans for a second certifying examination to be given in February 1971. In addition, recently the American Academy of General Practice voted to change its name to the American Academy of Family Practice. Furthermore, the AAFP is recommending that after 1975 the Education Council of the A.M.A. should not approve any more general practice residencies but only grant official sanction to family practice residencies.

There are many physicians who still feel this impact of family practice will only have a meager influence on the future practice of medicine, although there are now 53 approved family practice residencies in the United States with a combined number of approximately 300 residents. The expressed feeling is this number of residents represents the neophyte physicians who would have formerly chosen general practice residency programs. Many interested authorities have stated that the problem lies in the graduate, or medical, school level. Development of Departments of Family Practice repeatedly are stressed for medical schools in order to provide exposure to medical students who frequently decide their future area of medicine early in training. Nevertheless, approximately 50 of the approximately 100 medical schools have, or presently are planning, departments or divisions of family practice.

Regardless there is much to be said about the concept of family practice residencies. These training programs are not just a rehash of old GP residencies but a thoughtful and practical preparation of a student physician for the practice of medicine. As a graduate of a two year G.P. residency program following internship and as a director of a family practice residency program, the author wishes to delineate some of the newer, improved aspects of postgraduate training.

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Practical Training

Previously residency training programs have been geared for hospital activities. That is, the resident would devote approximately 80%-85% of the time in the hospital and about 15%-20% would be spent in outpatient facilities. The medical practice of these physicians, however, would be in the reverse order; namely, 15%-20% of the busy practitioner's schedule would be for hospitalized patients and approximately 80%-85% of the time would consist of medical office activities. Admittedly, for surgical specialties the hospital oriented training is more realistic for the future activities of these doctors. Nevertheless, many physicians acting in some capacity as primary physicians, such as generalists, internists and pediatricians, should have a different approach for the postgraduate training.

The author recalls from personal experience being ill-prepared for establishing a medical office. The neophyte physician starting practice is literally submerged with various salesmen offering easy but long committing credit for materials which are "needed" for the operation of a medical office. Many times it is three to five years before this beginning physician can personally decide what is needed and what is extraneous for his particular practice. In many instances this awareness occurs too late, with the doctor being shackled with 5, 10 or 20 year leases or contracts. The appearance of professional management corporations have assisted this situation, but these do not answer all the associate problems and decision-making situations. The popularity of the Medical Economics magazine only illustrates further these needs of the practicing physicians.

In general, however, the three year family practice residencies have the following division of hospital and office orientation: the first year is divided into 75% hospital and 25% office experiences; the second year is composed of 50% time in each area, or 50-50, and the third year is geared for 25% hospital work and 75% office activities. There are many ways that this division of responsibility is accomplished in each residency program,

according to the local variations of hospitals having these training experiences. Nevertheless, one way this division is accomplished is by the increasing assignment of the resident to the model of family practice.

The Model of Family Practice

The model of family practice is the simulated medical office for the resident which will mirror his future office in many ways. That is, many methods of practice will be demonstrated with the disadvantages and advantages of each being illustrated, such as solo, partnership or expense sharing, and group practice. In this manner a resident is provided the opportunity to select a future method of practice according to his personality and working habits.

The assignment of the student physician to this unit may be as follows: Two half days per week for the first year of training; then four half days per week for the second year, and finally six half days a week for the third year. As the residency progresses, more time is spent in the model of family practice. It should also be pointed out that these assignments are for each week of each year. That is, the resident will have weekly office hours throughout the training program.

The type of medical care to be provided in this setting should also be stressed. This care follows the definition of family practice, which is the continual comprehensive care of family units. By having weekly office hours, the continual type of care is furnished. In addition, by orientation, comprehensive care is fulfilled with the emphasis on people who may have several problems which need "bumper-to-bumper" service at one sitting. This type of service is called family medicine rather than the customary medical, surgical, or gyn. clinics. For example, in the older clinic concept a patient reported to the medical clinic on a Monday for blood pressure and cardiac status evaluation; then on Wednesday she showed up in the gyn. clinic for a Pap smear, and finally on Thursday she had a lump in the breast evaluated in the surgical clinic. In the newer concept, this same patient can receive all of these services at one time in the Family Medicine Service. Thus, the orientation is on people rather than disease or system entities.

People-Oriented Doctors

To further establish this "people-oriented" doctor concept, the family practice resident is assigned families who are followed throughout his training period. For example, for the first year there are 25 families, then 50 families for the second year, and finally for the third year there will be 100 families. This neophyte doctor provides care in whatever setting is required. The conditions may require the patient to be treated at home, the office or model of family practice, hospital, emergency room, an extended care facility or nursing home. The responsibility for providing 24 hours coverage rests on the shoulders of this resident.

Assisting the resident with this responsibility, the hospital switchboard functions as a "doctors' answering service." These families learn the name of "their doctor" and call the hospital whenever a medical problem arises. The switchboard operator locates the resident involved who decides whatever action is needed. That is, home remedies or adjustment of present medications may suffice until the next regularly scheduled visit in "the office." Or, the resident may meet the patient in the emergency room where evaluation is made concerning immediate therapy or possible hospitalization. If the patient is admitted to the hospital, the resident "works up" the patient and obtains any consulting services needed. Even if a special surgical procedure is performed, the student physician follows the progress of his patient and coordinates all the medical services, also acting as liaison for interpretation of this progress to the relatives. That is, the patient or his family will always have one physician who can be approached for information regarding medical care. If a resident desires to take an evening or weekend off, he checks out to another resident who so to speak "covers his practice." In this manner, it is hoped the neophyte physician will realize the responsibility of continual medical care.

In addition, whenever a resident examines a patient, four categories of diagnoses will be stressed. These are (1) the acute problem—what condition may have precipitated the seeking of medical care; (2) evidence of chronic conditions —these conditions may have been present for years but no disturbing symptoms caused patient concern, such as obesity, pulmonary emphysema, arthritis, hypertension, etc.; (3) the personality type or psychiatric diagnosis—the personal habits and pattern of patient behavior may alter the type of therapy prescribed, and (4) the home or family situation—the environmental factors and interpersonal relationships may affect illnesses and proposed treatment. This outlook is not only another comprehensive approach in patient care but

also it is more an involvement of patients as people rather than separate diseases or particular "sick systems." This same concept has been ably expressed as, "the whole sometimes is more than the sum of the various parts."

Coexisting Assignments

This type of residency training, as may now be apparent, functions with coexisting assignments or concurrent responsibilities. Previously training programs were divided in neat blocks of assignments. For example, there may have been four months on medicine, then three months on the ob/gyn service followed by two months on the surgical ward. Under this different approach, however, the resident will have conjunctional duties. Although this physician will be assigned to the ob/gyn service for two months during the second year, he will also see his families four half days a week in the model of family practice. Another example might be that a resident on the medical service may have his hospital rounds disturbed by having an obstetrical patient from the assigned families going into labor. The resident will admit this patient to the labor room and subsequently deliver her. Furthermore, postpartum care for the mother and nursery service for the infant will be furnished by this resident even though he is assigned to the medical service.

Although these coexisting assignments might create confusion for a learning environment, it is believed that this approach presents a more realistic preparation for the future practice of a family physician. The neatly blocked areas of learning may be more appropriate for the medical school level of student doctors. But, the postgraduate or residency level of learning needs a more realistic approach. The intent is not to create confusion or mayhem but to assist the resident in the accomplishment of adjusting his activities and schedule in a flexible fashion, allowing for emergencies and interruptions with deciding top priorities. Furthermore, the 24 hour coverage seven days a week for the assigned families affords the background for the resident to also adjust his own family and outside activities. This concept includes the provision for recreation for the resident, but with coverage of medical care for his families. A necessity will be stressed to allow time for the physician, literally speaking, "to recharge his batteries." It is the principle that a physician who doesn't take care of his own health cannot for long periods provide medical care for his patients.

These coexisting assignments will make this residency a hard and difficult one. Some people have expressed the opinion that a resident will need to be a "superman" to fulfill all these concurrent responsibilities. Actually, though, many communities anticipate a practicing physician to accomplish the same results. Nevertheless, during this training program the resident will be exposed to the various paramedical personnel and ancilliary community health services. The most efficient use and maximal benefit from these personnel and facilities will be demonstrated in order for the neophyte doctor to integrate these services into his medical practice for fulfillment of many of these responsibilities.

Community Medicine

This period or activity of training is spoken of as community medicine. The team approach to patients' problems is repeatedly illustrated throughout the residency. The program is interwoven with the involvement of inhalation therapists, dieticians, orthopedic technicians, physical and occupational therapists, visiting nurses, mental health assistants, and social service workers. In addition, the resident visits and observes the function of the local county health department, Easter seal center, community mental health center, and local Red Cross blood bank. The availability of these services with their limitations and the method of referral are incorporated into the training program. The future physician learns when and how to obtain community assistance in providing comprehensive health care for his patients.

Furthermore, the resident becomes involved in the physician's responsibility for providing supervisory and consultative services for these ancilliary health services. The voluntary health services are included, such as the American Cancer Society, Diabetes Association, Tuberculosis and Respiratory Disease Association and American Heart Association. This orientation goes one step further by presenting the role of organized medicine in the community with provisions for the resident's involvement. That is, the resident in an ex-officio fashion is appointed to committees of the hospital medical staff and the local county medical society. In this way, the neophyte physician learns and appreciates the practicing doctors' responsibilities and functions in these capacities. In short, the student doctor is made aware of how he can help the community, and how the community can assist him.

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A Medical Education Program for Florida

John A. D. Cooper, M.D., Ph.D.

The plan to expand medical education proposed by the State University System of Florida responds to the crisis in health that faces the nation. The crisis is based on the unmet needs and unsatisfied expectations of the people and the mounting costs of medical care. Although we do not have adequate measures of the level of health, there are indices that portray the incidence of disease. The United States does not rank high among the industrial countries of the world on these indices in spite of our relative affluence and the high level of our medical competence. Rising costs of medical care denies it to many and constitutes an increasingly serious financial burden for a larger and larger proportion of the population. Insurance coverage is still inadequate, although Medicare and Medicaid cover 38% and private carriers 22% of health care costs. The major financial burden for illness still falls on the resources of the family.

The problems facing us in health care are complex and will require the close and energetic cooperation of the profession, the universities, and their medical centers, government at all levels and the public in their resolution. Working together, concerned groups and individuals must develop more effective and efficient ways to promote health and diagnose and treat disease. This will require greatly increased experimentation, innovation and demonstration in health education and the delivery of health care. The fruits of the revolutionary advances in the biomedical sciences and clinical medicine must be made available to all segments of society. Ways must be found to allocate the costs of health care equitably to the public and private sector. We must continue an adequate level of biomedical research to provide the advancing knowledge that is critical to the replacement of empirical and palliative medicine with more effective preventive, diagnostic and therapeutic medicine. We must expand our educational programs to prepare health professionals to alleviate shortages which will worsen if a comprehensive national health program extends coverage to millions of additional citizens.

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The educational program developed through the cooperative efforts of Florida State University, Florida A & M University and the University of Florida College of Medicine is an innovative approach to increasing the supply of physicians needed to meet the requirements of the state and the nation. It is reassuring that a college of medicine, which is a strong and distinguished institution, has the responsibility for directing the program. The design recognizes that changes in the biomedical sciences and the practice of medicine call for carefully conceived and soundly planned modifications in the preparation of physicians. The proposal to utilize the resources and facilities of university departments and existing community institutions in the educational program is consistent with the recommendations of the Association of American Medical Colleges Committee on Medical School Expansion and of the Carnegie Commission on Higher Education. Because of the blurring boundaries between the traditional segments of medical education—premedical, basic medical sciences, clinical medicine, and internship and residency training—and their interdigitation in the curriculum, it is of critical importance to have continuing, close liaison between the components of a decentralized program. Although the University of South Florida (Tampa) might accept students from FSU and Florida A and M, extending the program to additional institutions will make adequate communication more difficult and should probably await experience with the initial endeavor.

The flexibility introduced into the program permits students to progress at a pace appropriate to their background and previous educational experiences and their individual rate of learning and development. This is valuable not only for the student who can move ahead faster, but also for those who may require a longer period to correct defects in their earlier education.

The use of community health care facilities for at least a part of the clinical teaching program can substantially decrease the costs and lead time for increasing class size. Although it is not necessary to convert community hospitals into complex, university teaching hospitals, there are few that

do not require additional faculty and facilities to assume their new role. Students also make a contribution to the medical care given in the hospitals where they receive their education and training for they are very effective in continuing education of the attending staff.

The Florida program promises to be an exciting venture, particularly if it can also stimulate innovation in methods for improving the health of the community. It will be followed with great interest by all concerned with the education of health professionals and the delivery of medical care.

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New Students, New Physicians, New Patients

Education presumably fits one to solve problems; it is not itself a solution to any specific problem. Academicians and practitioners must appreciate more fully that they are not always prime movers in changing patterns of care.

Our professions derive their existence from social and public needs, and they must be ready to justify the investment society makes in them. A healthy society is one in which there is the most judicious balance between social pressure for change and the capacity of the professional to make changes which are reasonable and radical at the same time.

Today's curricular innovations are the substance of tomorrow's practice. They are responses to the unresolved crises of medical care and manpower undergirded by student and public disaffection. The initiative for resolution of these crises must be recaptured by medicine if quality is to accompany the extension and expansion of services. This initiative is recapturable only by a fundamental shift of attitudes, motivations, and behavior, even at the cost of certain comfortable conventions and privileges.

In the effort, practice and education are indissolubly bound together. Both must respond gracefully, creatively, and, above all, with the public good foremost. Only in this way can our profession merit the social and moral leadership our patients and the public have a right to demand of us.

Reprinted from Special Communications article "Medical Practice and the New Curricula" by Edmund D. Pellegrino, M.D., JAMA, Aug. 3, 1970.

A General Practitioner Joins the Medical School Faculty

Richard A. Henry, M.D.

The reason a general practitioner gave up a 15-year remunerative and rewarding practice to join the faculty of the University of Florida College of Medicine may be of interest.

After establishing a solo practice in Brooksville, I was quickly inundated with patients and found it a real effort to preserve any semblance of family life, get adequate postgraduate training and develop avocational interests. I felt a personal responsibility for being available and even after building and staffing a three-doctor clinic could not divorce myself from this obligation. The obvious solution was to attract more physicians to the area but this is not easy simply because there are not enough practitioners who want to go to rural areas. Once there, however, they probably would find the practice and living as rewarding as I have. But what a circus of gymnastics is required to get good doctors to consider the many advantages!

In discussing these problems with the faculty of the medical school in Gainesville, they explained their program at Mayo and invited me to join them in introducing rural practice to medical school students and residents. This gauntlet was irresistible.

Clinic at Mayo

In 1968 Dr. R. C. Reynolds and his associate in community medicine, Dr. George Caranasos, searched for a geographically circumscribed rural area needing health care and receptive to an educational program. The purpose was to introduce the problems of rural health care delivery to students and residents by actual participation. The College of Nursing later joined this innovative method of teaching. The members of the community would receive, in return, medical care where there previously had been little.

They found such an area in Mayo, 65 miles from Gainesville. Lafayette County had been without a practicing physician for ten years. An adequate modern-appearing clinic building, constructed in 1968, was already available. A community advisory committee soon had worked out the details with Dr. Reynolds and had requested a fee for service arrangement for all patients with receipts to be used to support the clinic.

Liaison and rapport were established with doctors and community hospitals in Live Oak and Perry, the nearest medical facilities to residents of Lafayette County. This relationship has grown from tentative acceptance to enthusiastic friendship. The clinic opened on Jan. 6, 1969, staffed by a medical resident and three senior medical students.

At the Lafayette County Health Center, as it is called, medical residents rotate on a one month basis, medical students on a three week basis and senior nursing students on a five to ten week basis. The resident reviews all clinic visits with the senior medical students. House calls are encouraged and both students and residents make home visits. Student nurses help and learn in the clinic as well as make many home and treatment follow-up visits. The students live in trailers adjacent to the Health Center and a house is rented for the resident and his family, thus providing 24 hour service for the community.

These figures give some scope of the project during its first year of operation:

Patient visits to health center	5,488
Individual patients treated	2,060
Home visits	500
Ophthalmology visits (clinic at Health Center)	53
Patient fees	$18,500

The County Commission provides $8,000 a year. The students operate the county-owned ambulance which grosses $3,000 a year including a supplement from the County Commission. Expenses have been greater than income because of initiation of the project.

My function is that of director and consultant to the students and residents in meeting the prob-

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lems presented by a rural general practice where the general practitioner is indeed a specialist.

Benefits to Medical Students

The effects of this rural health center on the medical student are quite striking and gratifying. The usual medical school graduate is not informed about rural practice because of his lack of exposure to it. He is inclined to picture the general practitioner as a bumbling ex-graduate who is out of the current stream.

The student sees patients for the first time outside the confines of the teaching hospital. He is responsible for an accurate history, examination, formulation of problems and therapy. He knows that no one has seen the patient before him and that no one will look as closely at the patient as he does. He takes an entirely different attitude toward the problems of the rural practitioner.

From my observations these young men and women are mature, alert, concerned and ready to assume this responsibility. They begin to appreciate the fact that the usual general practitioner is a conscientious, astute, hard-working individual who has many excellent clinical results that are never revealed at the teaching hospital. They have told me repeatedly that seeing patients as they do in the home environment and having to consider the economic, social and behavioral problems are the best medical school experiences they have had.

The students also express interest in learning trade name pharmaceuticals. They have no idea of the relative cost of medications and because of the interaction between themselves, the patients and the pharmacist they are rapidly learning that the cost factor can be important in treatment.

Numerous visitors to the Health Center during the past 16 months have expressed amazement at the enthusiasm of the students. Some have indicated that they have revised their thinking about specializing and are considering general practice, internal medicine or pediatrics in a rural area.

The residents supervise health care delivery and quickly become more incisive and more confident in their ability to work effectively outside the hospital. Each has shown interest by innovative approaches to patient contact, record keeping, case finding and preventive medicine.

Benefits to the Community

The effects of this health center on the community as well as the health professionals involved are best demonstrated by a case presentation. A 13-month-old infant was brought in with severe second degree burns of the abdomen and thigh with 10% body surface involvement. The resident, two medical students and two nursing students saw him initially and planned immediate hospitalization. We examined the child carefully and I suggested that we could probably treat him quite safely at home by careful hydration and prevention of infection. The unspoken attitude was that this was a good example of bad practice on the part of a G.P. They went to work, however, and did a beautiful job of clinic and home visit care. The child recovered in five weeks without sequelae, scarring or secondary infection. As a result the resident and students have more confidence in themselves and less dependence on hospital care. The financial saving to the family was more than $3,000, not including the dislocation and discomfort to the family if the child had been hospitalized.

Since then we have successfully treated five other severe second degree burn cases, ranging from 5% to 20% of body surface involvement. These and innumerable other experiences have favorably influenced the confidence of the students in themselves and the community in the Health Center.

The economic effect of the Health Center on the community has been surprising. Lafayette County with no change in population, industry or other economic influences we can determine increased its state tax collection by 25% during 1969. The five surrounding counties, some of which had population increases and/or new industries in 1969, had tax changes from —10% to +12%. Local merchants feel that out-of-county buying previously combined with out-of-county doctor visits is responsible.

Comparing this program of medical education in Lafayette County with reports of attempts by other medical schools to accomplish similar objectives, I would conclude that ours is without peer. We invite physicians to see the Health Center in action and to participate in this innovating teaching-learning situation. Of the total effort made by the medical school faculty to interest students in good health care delivery, especially needed in rural areas, the exposure at Mayo is probably the most effective.

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The MEDEX Training Program

Richard A. Smith, M.D.

In spite of services rendered by professionals and subprofessionals, many highly technical procedures involved in patient care remain the practicing physician's sole responsibility. There is a need, however to relieve him of simpler time-consuming procedures to help him extend his capabilities. This is the reason for the program conceived at the University of Washington School of Medicine at Seattle with the cooperation of the Washington State Medical Educational and Research Foundation and participating private physicians.

Known as MEDEX (*med*ecin *ex*tension), this program utilizing products of the military medical system seeks to develop another pair of skilled hands supervised by the physician and available to him 24 hours a day—a person trained by and for a specific physician. MEDEX is a model of nonphysicians extending primary medical care. It has demonstrated that former corpsmen additionally trained can perform satisfactorily many tasks which do not require the extensive and sophisticated medical school education. A few physicians presently employ individuals in analogous practice settings.

The military system developed methods for rapidly training personnel to meet its specific medical needs similar to those of the civilian medical care system. Corpsmen receive from 1,400 to 2,000 hours of formal medical training which may include a nine week "clerkship." Many have a college background. When discharged from the service they had had three to 20 years experience including independent duty on the battlefield, aboard ship or isolated stations and possess certain skills and knowledge in provision of primary care. The investment of public funds in medical capabilities and potential care are lost; however, for they return to a civilian setting which is unable to utilize their training and talents. Personnel for MEDEX have been drawn from this pool.

Initial screening of 80 applicants produced 26 corpsmen to be interviewed for the 15 positions. Those selected varied in age from 22 to 55 years and educationally from a high school diploma to a bachelor's degree. Criteria for selection included the individual's knowledge of his limitations, judgment under varying circumstances, interpersonal relationships, medical task proficiency and knowledge, and satisfaction with the projected role of MEDEX. Fourteen physicians volunteered to participate in the program, conduct a 12-month preceptorship in their offices and subsequently hire the corpsmen.

During three months training at the University of Washington School of Medicine, emphasis was upon pediatrics, geriatrics, histories and physical examinations, and psychiatry. Instructors included faculty members of the school of medicine and physicians in private practice.

The preceptorship followed medical school training. Twelve are in rural Washington; two are in an urban setting and one is with a suburban general practitioner. For the initial months the trainee learned and applied primary medical care skills under the physician's close supervision. When the physician developed enough confidence in him, he extended the physician's capabilities in a variety of ways.

The conditions which produced the setting for MEDEX in Washington are not totally unique. The state medical association's leadership and expressed concern for its members were important factors leading to selection of this time and place for the program. Another important element was the very obvious need for help in rural Washington where dedicated general practitioners are growing increasingly concerned about their ability to maintain the quality and quantity of care for their patients. Of major importance, also, is a medical school evolving to meet the needs of the community it serves.

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A Regional Computerized EKG Processing Center

Lamar Crevasse, M.D. and Mario Ariet, Ph.D.

When we consider that 25 million EKG's are processed in this country each year the problem of their systematic analysis, storage, and retrieval is of considerable magnitude. Furthermore, the ever increasing demands on the health care system for personnel and cost control make computers ideal for handling this large volume of data. The speed, accuracy, memory and logic of the computer provides an excellent system for EKG analysis. Despite the fact that computers are widely used in the business aspects of our hospitals little application has been made in the medical field. It is now quite clear that computers will be used extensively in this area as they are able to perform repetitive decision making processes with a high degree of accuracy. The computer, with its capability of handling this huge volume of electrocardiographic analyses, can preserve physician time for direct patient care. It is now possible, with computer assisted analysis, for the physician to validate an electrocardiogram in less than one minute.

Systems

The central EKG system as outlined here is located at the University of Florida College of Medicine in Gainesville. It is designed for the acquisition, multilead transmission, reception and recording of electrocardiographic signals from throughout the state of Florida. The total system consists of data acquisition carts, data transmission phones, telephone receiving interface, tape recorders, an IBM 1800 computer, digital plotter, and telecommunication system. This central system is capable of receiving, via telephone lines, electrocardiographic signals from any location from which a regular voice grade telephone communication can be established. We are currently processing EKG's from three local hospitals, two distant hospitals and five screening clinics from throughout the state of Florida.

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Data Acquisition

Our EKG Patientransmitter carts have a set of electrodes which acquire all the standard 12 and Frank X, Y, Z leads without changing electrode position. After all the electrodes are attached (Fig. 1) the technician dials the EKG computer center and the call is answered automatically by our telephone interface. At this point the technician receives a specific tone indicating establishment of the telephone communication with the interface. This EKG transmission can now either be directed into our computer or recorded on analog magnetic tape for later processing. The technician then enters the identification numbers through a touch-tone system. The first two digits indicate the Florida county of origin, followed by the specific location within that county and the patient identification number. The technician then switches to EKG acquisition and the cart then transmits simultaneously three at a time all standard and X, Y, Z leads (Fig. 2). A three-channel direct writer on the cart provides a paper recording at the sending site. The complete transmission requires 20 seconds and the total telephone transmission time is approximately one minute. The three-channel direct writer records



Fig. 1.—EKG transmission via telephone to the computer.

compactly three leads at a time and eliminates subsequent cutting and mounting of the electrocardiogram.

Telephone Transmission

The three EKG signals generated from the cart are multiplexed and transmitted in groups of three simultaneous leads over a single telephone line. The EKG signals arrive at the computer center and are received by the telephone interface and either enter the computer directly or are stored on analog tape in multiplexed form. The receiving center has sequential telephone answering with three tape recorders (Fig. 3). This permits the simultaneous recording of three electrocardiograms from remote sites.

Data Processing

The analog tapes accumulated throughout the day are played through the computer interface to the computer. The interface separates the identification digits and transmits them in binary coded digit form to the computer. In addition, the EKG signals are filtered to recover the three simultaneous Frank X, Y, Z leads which are sent to the computer in analog form. Our computer system contains an analog-to-digital converter in which



Fig. 3.—Central Ampex tape system for EKG recording.

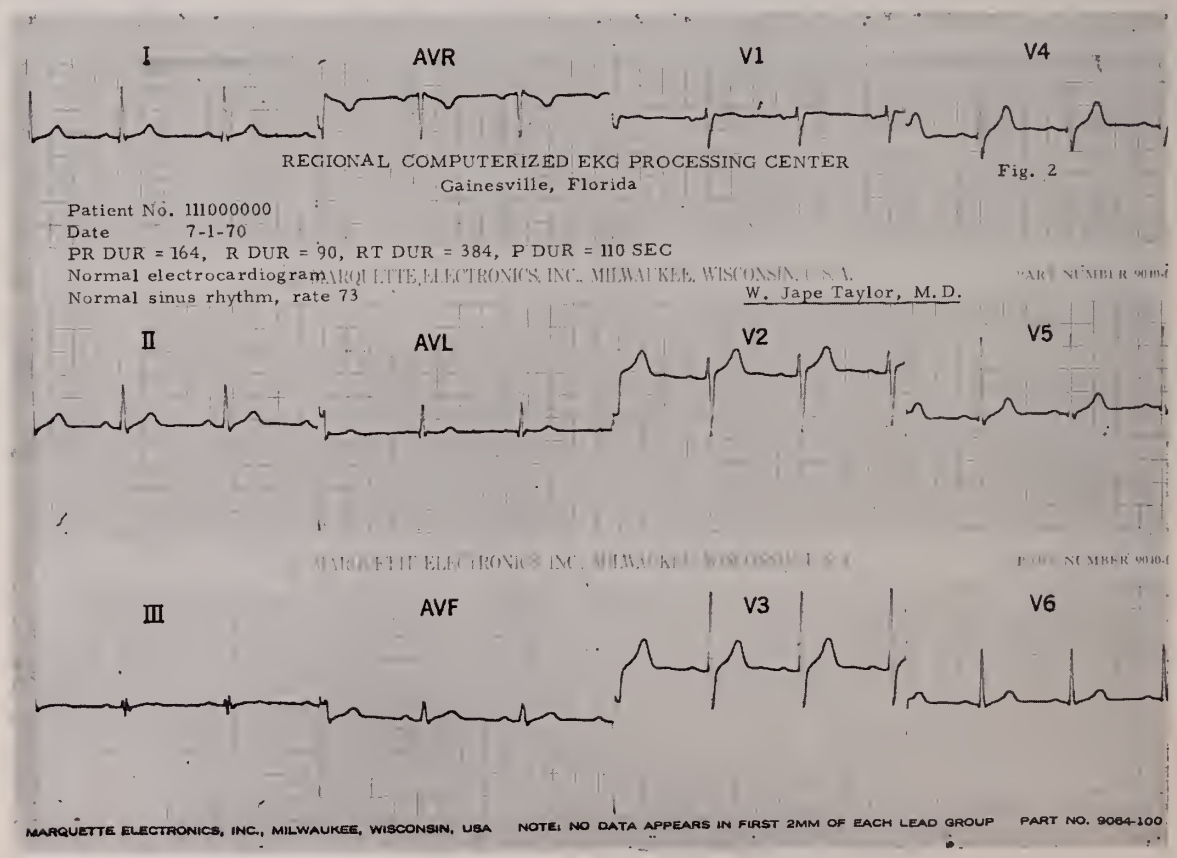


Fig. 2.—Twelve lead scalar EKG and computer analysis.

the electrocardiographic signals are converted to digits at the rate of 250 samples per second. Once the electrocardiogram has been converted to a digitized form it is stored on the computer's random access disk for subsequent analysis.

Computer Programs

The logic of electrocardiography lends itself quite well to computer programming. Caceres[1] and Pordy[2] have applied this technique to the practical aspects of the analysis of the electrocardiogram. Their system and techniques are now widely used. It is based on the standard measurement of the various P, QRS and T intervals of the standard 12 lead scalar EKG. Most computer programs are designed to simulate the pattern recognition techniques used by electrocardiographers. The computer thus recognizes first the QRS complex, then the T, P and proceeding QRS complex. For instance, Caceres' program determines the RR interval and thus the rate for each electrocardiogram. It then measures the QRS, R prime, S and various other intervals for width in seconds and amplitude in tenths of millivolts. These measurements are made for the 12 leads. In addition, the overall intervals of the QRS, PR, QR, T and P are determined as well as the angles between the QRS and T vector. This mass of data is compared to commonly recognized standards of measurements for the scalar electrocardiogram and the proper diagnosis printed.

Pipberger[3] and Smith[4] have developed programs for the Frank vector system for computer analysis. The Frank System lends itself well to this computer analysis as it is an orthogonal projection of the electrical activity of the heart. Thus, lead placement and body build do not distort the electrical activity. Furthermore, the heart's electrical activity is examined simultaneously from three dimensions. An additional advantage is that the leads can be transmitted simultaneously over the telephone line rather than sequentially as in the one-channel 12 lead scalar system. The Frank System further provides loops for examination and is the most widely used vector system in this country. For these reasons we have elected to utilize the program developed by Dr. Ralph E. Smith of the Mayo Clinic.[4]

In the vector program the simultaneous leads are combined to obtain vectorial magnitudes and angles which represent electrical activity in three dimensions. Then these values are compared to special criteria to generate a diagnosis. We feel that this latter approach has many advantages. The data is thus printed out on a teletypewriter and for each abnormal electrocardiogram a plot is generated illustrating the P, QRS and T vectors in the frontal, horizontal and saggital planes (Fig. 4).

Reporting

Depending upon the circumstances the information generated must be returned to the site of origin in a reasonable time. At remote locations involved in the day-to-day care of patients, the electrocardiographic analysis is returned by teletype. In the routine screening centers the information is returned by mail or carrier. The EKG reporting system is a critical link in a regional computerized processing center. As in most hospital circumstances the turn around time for an EKG analysis should not be more than two hours. This rapid reporting of information is best accomplished by the computer actually running the teletype equipment and as the EKG is analyzed the teletype from the remote location is activated and the information printed out at the site of origin. In emergency situations, the system can generate a report on a remote teletype in less than two minutes after reception of the EKG data. It is quite evident, however, that in mass or routine screening the turn around time is not critical and that EKG tapes can be sent to the center for processing and the results also returned by mail.

Data Storage and Retrieval

The storage of routine electrocardiograms in a permanent form is an overwhelming problem for medical records. The important advantage of being able to compare the previous electrocardiogram of a patient for current changes is self-evident. It is clear, however, that the standard storage of electrocardiograms as practiced in this country is obsolete. Electrocardiograms would best be stored in a computer compatible form which can be retrieved and compared by the computer with a current electrocardiogram. We feel that this rules out optical systems such as the microfilm aperture card and microfilm systems where a microfilm of the complete tracing is mounted on an IBM card. We are currently simply storing the electrocardiograms on analog tape. This approach is not adequate and has two main disadvantages in that the number of EKG's stored on each tape is small and the search and retrieval process for a particular EKG may be laborious. It appears that the electrocardiogram would best be stored on digital magnetic tape.

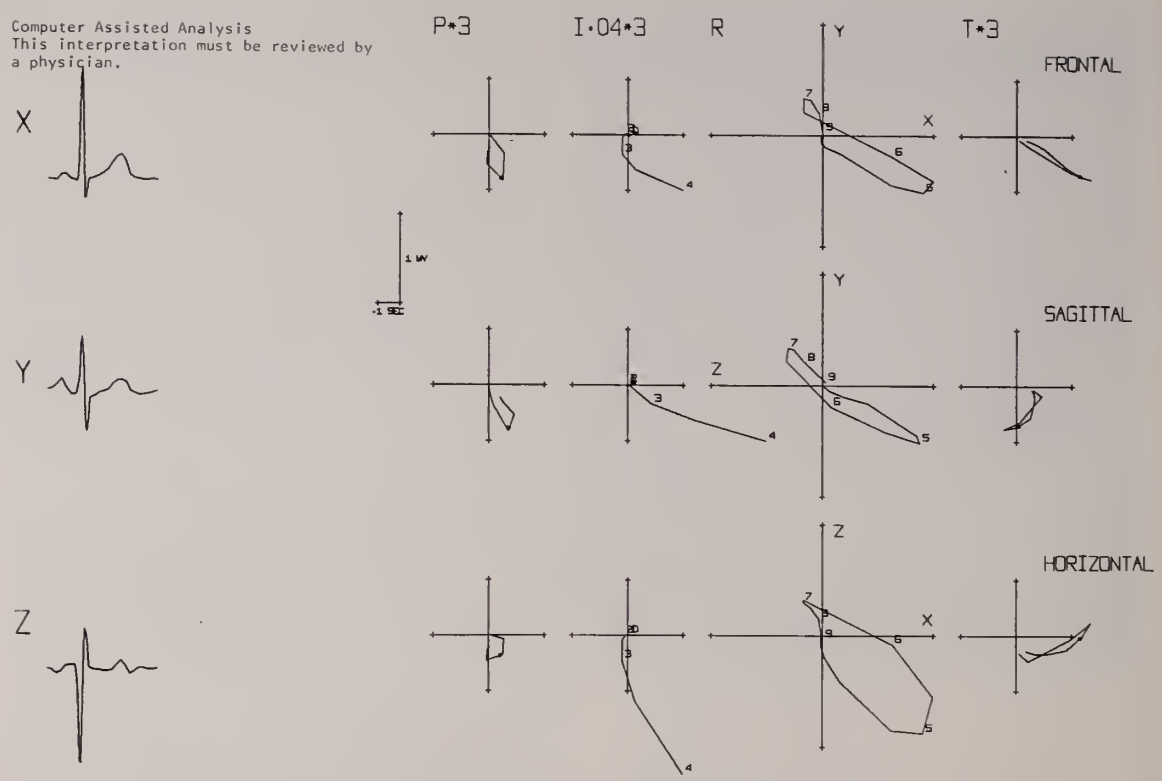


Fig. 4.—Computer plot of the P, Initial .04 (I.04), QRS, and T vectors of the Frank vector system.

This provides for storage of thousands of electrocardiograms per tape and fast automated retrieval of a particular EKG. We believe that as comparative programs become available the storage and retrieval in this form will reach its potential in terms of increasing our efficiency and improving the quality of the total diagnostic process.

Computer Accuracy

The computer by the very nature of its logic system essentially always makes the same analysis for the same electrocardiogram. The variability in computer analysis depends on inadequacy of the program, an error in sampling of a complex, or electrical noise. Whereas the computer makes essentially the same diagnosis on the same electrocardiogram, two physicians reading the same tracing will often differ in opinion. In measurement consistency of intervals such as the P and QRS, the computer has a 97% consistency, whereas physicians making these measurements are approximately 60% accurate.[5,6] It is entirely clear that computers have a quantitative advantage in measurement over the human. Furthermore, the computer has an overall computer/physician agreement of 83% in our 1,000 randomly selected hospital based electrocardiograms. This is comparable to the 80% accuracy reported by Caceres.[7] This is superior to the considerable degree of interobserver variability of physicians where complete electrocardiographic agreement has ranged from 33% to 70% as reported by Acheson,[8] Epstein[9] and Segall.[10] Furthermore, the physician will disagree with one in every five of his own previous interpretations.[6] We have observed that the computer is more consistent than 20 cardiologists sampled from throughout the United States. The computer demonstrated a 77% clinical agreement with ten difficult EKG's as judged by three independent cardiologists. The 20 cardiologists exhibited only a 56% overall clinical agreement. These observations are not surprising when one considers the highly subjective nature of an electrocardiographic analysis. We believe that the computer, though not necessarily superior to some cardiologists, is probably more consistent in analysis than cardiologists as a group.

Cost Analysis

A major objective of the computerized processing program is an attempt to lower the cost of health care. A detailed cost analysis of our system

based on our previous experiences and estimates of future costs reveal that the EKG analysis is dependent both on the volume of electrocardiograms processed at the center and the volume transmitted from a specific site. We are presently processing 30,000 electrocardiograms per year for an all inclusive cost of $7.75 per electrocardiogram. As our volume rises to 100,000 per year the estimated total cost of the electrocardiogram will be reduced to about $3.50. It is quite clear that if the average all inclusive cost of $15.00 per electrocardiogram for the approximately 50 million EKG's done each year could be reduced, this would result in a substantial saving.

Summary

The regional computerized EKG processing center provides automated efficiency for a variety of hospitals and screening clinics. It brings expertise in electrocardiography to areas without cardiologists. Quality control for EKG reporting and an educational mechanism for physicians are provided. Computers can reduce the cost of health care and provide a tool for economic mass screening for heart disease. The system will ultimately improve health care delivery by providing a computer assisted analysis for physicians and by conserving physician time for more important health care problems. The automated heart station will be replicated in various population areas throughout the state. Hospitals will either utilize their own computer facilities or link their system with regional centers.

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Herein lies the real value of education. Advanced education may or may not make men and women more efficient; but it enriches personality, increases the wealth of the mind, and hence brings happiness. It is the finest insurance against old age, against the growth of physical disability, against the lack and loss of animal delights. No matter how many there may be in our family, no matter how many friends we may have, we are in a certain sense forced to lead a lonely life, because we have all the days of our existence to live with ourselves. How essential it is, then, in youth to acquire some intellectual or artistic tastes, in order to furnish the mind, to be able to live inside a mind with attractive and interesting pictures on the walls.

William Lyon Phelps



Half Time Report

Bennie Spanjers
(Mrs. Arnold J.)

Six months have passed in the 'Age of Aquarius' auxiliary year, and most of the members have taken a well deserved sabbatical during the holidays.

Two new auxiliaries, Charlotte and Collier Counties, have come into being. Mrs. Robert H. Mitchell is the current president of Charlotte County and Mrs. Fred P. Swing is the presiding officer of Collier County.

The Fall Conference and Board Meeting held in Winter Haven is now history and was most informative and well attended. The International Health Activities Bazaar raised over $1,050 at the Conference and this sum will be donated to Care-Medico. The guest speakers were the finest and greatly enhanced the meeting. As a result of a visit from the national WA/SAMA president, we now have a chapter of interns' and residents' wives in Orlando. This is the first WA/SAMA chapter in Florida.

In line with our number one priority project, Drug Abuse Education, the auxiliary has taken an active role in the state-wide planning of courses prescribed by the Florida Department of Education. We have acted as a resource contact and have distributed educational material around the state. We have also provided speakers and helped arrange the physical facilities.

January has been designated as Blood Donor month. Throughout the nation there is a critical need for blood. Every day more than 13,000 units of blood are transfused in the United States—nearly 6,000,000 units per year. It has been estimated that the annual blood requirements of the nation are provided by less than 3% of the eligible donor population of the United States—approximately 3,000,000 donors. Unless more people become donors, the supply will not keep pace with the growing demand for blood. Mrs. Linus W. Hewit of Tampa, Chairman of the Council on Community Health, Woman's Auxiliary to the AMA, has distributed a Blood Donor kit to medical auxiliaries throughout the country. This kit has been prepared to try to help solve the blood procurement problem in communities, whether large or small, urban or rural. The kit contains information on how to be a blood donor and also facts about blood. Suggested films and information aids are also included. The AMA has requested that the Blood Donor program be given priority during 1970-71. If you feel a need for this in your community, all you have to do is contact the nearest auxiliary member (we hope it's your wife!) and an effective program can be presented and implemented in your area.

The auxiliary is still presenting its Package Programs around the state. One of the newest programs developed by the AMA is "One Dozen Days for Public Affairs." It is designed to help the novice or experienced amateur in public affairs activities, such as political party work, candidate support, school board elections, support of bond issues, pollution control and community health education. It also offers in compact form invaluable suggestions for activities, a 1970 Congressional Directory, a catalog of AMPAC films as well as sample brochures. The 1970 elections are behind us, but *now* is the time to start working for the next go round.

So as the second half of the 'Age of Aquarius' marches on, we hope you all have had a happy holiday season. From the 3,000 members of the Florida Medical Auxiliary comes the wish for a happy and healthy New Year for each member of the Florida Medical Association. Again we reaffirm our desire to be of service. We are here if you need us—all you have to do, doctor, is whistle.

Mrs. Spanjers is president, Woman's Auxiliary to the Florida Medical Association.



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Special note: Oral contraceptives have been marketed in the United States since 1960. Reported pregnancy rates vary from product to product. The effectiveness of the sequential products appears to be somewhat lower than that of the combination products. Both types provide almost completely effective contraception.

An increased risk of thromboembolic disease associated with the use of hormonal contraceptives has now been shown in studies conducted in both Great Britain and the United States. Other risks, such as those of elevated blood pressure, liver disease and reduced tolerance to carbohydrates, have not been quantitated with precision. Long-term administration of both natural and synthetic estrogens in subprimate animal species in multiples of the human dose increases the frequency of some animal carcinomas. These data cannot be transposed directly to man. The possible carcinogenicity due to the estrogens can be neither affirmed nor refuted at this time. Close clinical surveillance of all women taking oral contraceptives must be continued.



Indication—Demulen is indicated for oral contraception.

Contraindications—Patients with thrombophlebitis, thromboembolic disorders, cerebral apoplexy or a past history of these conditions, markedly impaired liver function, known or suspected carcinoma of the breast, known or suspected estrogen-dependent neoplasia and undiagnosed abnormal genital bleeding.

Warnings—The physician should be alert to the earliest manifestations of thrombotic disorders (thrombophlebitis, cerebrovascular disorders, pulmonary embolism and retinal thrombosis). Should any of these occur or be suspected the drug should be discontinued immediately.

Retrospective studies of morbidity and mortality in Great Britain and studies of morbidity in the United States have shown a statistically significant association between thrombophlebitis, pulmonary embolism, and cerebral thrombosis and embolism and the use of oral contraceptives. There have been three principal studies in Britain[1-3] leading to this conclusion, and one[4] in this country. The estimate of the relative risk of thromboembolism in the study by Vessey and Doll[3] was about sevenfold, while Sartwell and associates[4] in the United States found a relative risk of 4.4, meaning that the users are several times as likely to undergo thromboembolic disease without evident cause as nonusers. The American study also indicated that the risk did not persist after discontinuation of administration, and that it was not enhanced by long-continued administration. The American study was not designed to evaluate a difference between products. However, the study suggested that there might be an increased risk of thromboembolic disease in users of sequential products. This risk cannot be quantitated, and further studies to confirm this finding are desirable.

Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions medication should be withdrawn.

Since the safety of Demulen in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule the possibility of pregnancy should be considered at the time of the first missed period.

A small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The long-range effect to the nursing infant cannot be determined at this time.

Precautions—The pretreatment and periodic physical examinations should include special reference to the breasts and pelvic organs, including a Papanicolaou smear, since estrogens have been known to produce tumors, some of them malignant, in five species of subprimate animals. Endocrine and possibly liver function tests may be affected by treatment with Demulen. Therefore, if such tests are abnormal in a patient taking Demulen, it is recommended that they be repeated after the drug has been withdrawn for two months. Under the influence of progestogen-estrogen preparations preexisting uterine fibromyomas may increase in size. Because these agents may cause some degree of fluid retention, conditions which might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. In breakthrough bleeding, and in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In undiagnosed bleeding per vaginam adequate diagnostic measures are indicated. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. Any possible influence of prolonged Demulen therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving Demulen therapy. The age of the patient constitutes no absolute limiting factor, although treatment with Demulen may mask the onset of the climacteric. The pathologist should be advised of Demulen therapy when relevant specimens are submitted. Susceptible women may experience an increase in blood pressure following administration of contraceptive steroids.

Adverse reactions observed in patients receiving oral contraceptives—A statistically significant association has been demonstrated between use of oral contraceptives and the following serious adverse reactions: thrombophlebitis, pulmonary embolism and cerebral thrombosis.

Although available evidence is suggestive of an association, such a relationship has been neither confirmed nor refuted for the following serious adverse reactions; neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis.

The following adverse reactions are known to occur in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea during and after treatment, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post partum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals and mental depression.

Although the following adverse reactions have been reported in users of oral contraceptives, an association has been neither confirmed nor refuted: anovulation post treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption and itching.

The following laboratory results may be altered by the use of oral contraceptives: hepatic function: increased sulfobromophthalein retention and other tests; coagulation tests: increase in prothrombin, Factors VII, VIII, IX and X; thyroid function: increase in PBI and butanol extractable protein bound iodine, and decrease in T^3 uptake values; metyrapone test and pregnanediol determination.

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Editorial

1971

In the course of the old year just departed, and during the New Year now making its appearance, every man, being an artist, by his mental attitude and the way he spends his time, paints the picture which is his life. So should he, as well as I, utilizing the best of our talents, make certain that the portraiture is worthy of each of us, giving it honesty, imagination and color. Although the realism I paint may never rate an honored spot, I must put everything I have in it, giving myself the satisfaction of knowing that good or bad, it is the best that I can do, reflecting the real things for which I stand. Realizing that while the old year may have produced wrinkles on my brow, let them not in the New Year emerge on the cockles of my heart, for one does not grow old with the passing of years but with the deserting of one's ideals. Growing old is not a time of life but a state of mind. It is not "a matter of ripe cheeks, red lips and supple knees, it is a temper of the will, a quality of the imagination, a vigor of the emotions." It is a freshness of the deep springs of life.

In the New Year, let me not lose the love of wonder, the amazement of the stars, the undaunted challenge of events or an unfailing childlike appetite for what's new. Let me remember that I can be "as young as my faith, as old as my doubts, as young as my self-confidence, as old as my fears, as young as my hope, as old as my despairs." Let me greet each day with reverence for the opportunities it contains. Let me approach my profession with a clean mind, to hold before me, even in the doing of little things, the ultimate purpose for which I am working, to meet all patients with hope in my eyes and love in my heart, to be gentle, kind and courteous throughout every working hour of each long day and so able to approach each night with weariness that woos sleep and joy that comes from work well done.

Realizing that every crucial experience can be a setback or a new start, let me wisely make certain what course each new happening shall have for me, then let me pursue positively my real contributions with determination, and sort out lasting concepts of behavior from transient fads. Finally, let me always remember that though advancing age may be a hindrance to the body, it is not to the will, for our minds have unbelievable power over our bodies and a man's spirit is the most powerful force for good on this earth.

So, in the New Year, though older but hopefully wiser, let my resolution be the dedication to plan and work for a "physical and social environment in which the quality of human life is preserved and the dignity and integrity of the individual is safeguarded."

C.M.C.



Letters

Dear Dr. Collins:

The problems inherent in using several colleges to train students for entering the second year of an American medical program are difficult but not insurmountable. The problems are those inherent in working with a mixed group of students, only a part of whom really intend to make a career of medicine. If the requirements for passing the course work are as difficult as those in medical school, the flunk-out rate is exorbitantly high. If the requirements are less, the student is foolish to take his first year of medical school work in the college.

I am impressed each year by the great effort that medical students are willing to make. They have entered a profession for life, they see many doctors on the faculty obviously enjoying the fruits of their labor. First-year medical students at work are very different from college students at work. These differences provide the drive that causes two-year medical schools to evolve into four-year medical schools.

The plan to use community hospitals as primary teaching hospitals for the fourth year and for the education of interns and residents is doomed to failure unless one makes a much greater investment in faculty than the plan envisages. The problems in this approach are discussed in a paper entitled "Medical Education and Practice," Annals of Internal Medicine, February 1970.

Happy doctors practicing family medicine will bring more students into the field of family practice. Harried doctors with no time for relaxation and enjoyment of their own families will keep students from entering the field. The family doctor needs an effective clinical support system to allow him to serve a large number of people at a low cost per person and to allow the doctor to have time to enjoy the fruits of his labor. Florida undoubtedly needs more doctors, but the doctors now in practice need more effective support. This need to produce health manpower other than the doctor and nurse has not been faced up to by most medical schools.

Eugene A. Stead Jr., M.D.
Durham, North Carolina

Dr. Stead is Professor of Medicine, Duke University Medical Center, Durham, N.C.

Dear Editor:

As a member of the Health Manpower Committee of the Areawide Health Planning Council, I am fully aware of all the shortages that exist in health service fields—from technicians to physicians. With the population explosion and the increase in longevity due to better medical care, the need for technicians and physicians is more apparent daily. The standard approach to medical education, I believe, needs to be reconsidered.

The Kellogg Community College is working on this with its "core and cluster" approach to education in the health technologies, but it is felt not only does one need to provide lateral mobility in the technical training, but to allow forward mobility in their training so that they can progress up the health service ladder to become an M.D.—a type approach of on-the-job training with association of medical schools for their academic knowledge. It is felt that if medical schools can incorporate this thought into their requirements for entrance to schools that not only will they be providing an additional source of labor for their hospitals, but will be turning out individuals who have a basic and fundamental interest in services in the health field.

The enclosed letter is to help evaluate the consideration in this regard.

Carl E. Andrews, M.D.
West Palm Beach

Dear Dr. Andrews:

Excuse this rather impersonal response to your query about the "core and cluster" approach to education in the health technologies here at Kellogg Community College.

This program is being funded by a grant from the W. K. Kellogg Foundation. In the grant proposal submitted by the college to the foundation, the term "core and cluster" was used to describe an approach the college wanted to attempt to develop as a means of making education in the health technologies more meaningful to the student and more efficient in terms of lowered attrition from the field in general.

The "core" program we are attempting to develop will be one of complete commonality. All

students entering Kellogg Community College with the intention of matriculating in one of the specific health technology programs will, in their first semester, take the same courses. This type of core will enable students to become more familiar with the work of various health related fields and thus encourage greater respect between the members of the health team. It will also provide him with the freedom to change his career goals within the health technology area with a minimum loss of credits and time.

We are currently involved in the following health related programs: Nursing (ADN); Nursing (LPN); Radiologic Technology (AD); Dental Hygiene (AD); Medical Secretary-Assistant (AD), and Medical Laboratory Technician (AD). At the beginning of the 1971-72 academic year, we will introduce programs in Dental Assisting (certificate) and Physical Therapy Technician (AD).

We hope that all of these programs will be able to utilize the "core" semester and they represent the "cluster" of health related programs. The student who completes the core semester will have satisfied the first semester curriculum requirements for the entire spectrum of health related programs offered here.

We have been involved in a "core" approach in the nursing program for two years. Basically, we are expanding on this program and at the same time attempting to remedy some of the problems. Students are not categorized as ADN or LPN candidates but rather as nursing students and in the future we plan to recruit to the health technology program in general and make the selections during the core semester. Acceptance to a particular program will be based on performance in the academic area, aptitude testing and personal interviews for the purpose of determining motivation. . . .

Concerning your question about articulation with higher levels of education culminating in admission into medical school, this is not "built into" the program nor can it be at this point, however, the student is not necessarily "dead-ended" by the programs either.

Thank you for your interest in our program. If you can provide us with any information, suggestions or comments, feel free to do so. I look forward to further communication with you.

Thomas D. Klopfenstein, Ph.D.
Associate Dean for Health Technologies
Kellogg Community College
Battle Creek, Michigan

Dear Dr. Collins:

Just a note in appreciation of your mentioning my favorite conservation organization in the October issue of the F.M.A. Journal. Might add too that the national office has just recently changed address and the new address is: 1800 North Kent Street, Arlington, Virginia 22209. Also that we have a very active and ambitious chapter here in Florida. The state chapter president is: Mrs. Jeanne Niswonger, Post Office Box 2544, Lakeland, Florida 33803.

As you may or may not know, The Nature Conservancy is a non-profit corporation whose prime goal is the saving of natural areas, regardless of what Mother Nature made originally or what she has done to it since. The organization is only 8 years old and has already set aside nearly 200,000 acres of natural areas in the United States. The areas are of all types, ranging from 13,500 acres of Rain Forest in Mauai, the Hawaiian Islands, to desert in Utah, to natural stands of birch timber in New England.

Here in Florida where I have been a member 6 years, our efforts have been very rewarding and include: St. Vincent Island off Apalachicola, Koreshan Unity near Fort Myers, Fuchs Hammock south of Miami, the William H. Browne gift of the Theodore Roosevelt Preserve here in Jacksonville, Rookery Bay, Corkscrew Swamp, Pelican Island, Sanibel Island, and others.

Presently we have a number of projects going on: a ten acre tract in Tallahassee, 8,000 acre tract of the Ten Thousand Islands south of Naples, Two Keys in Monroe County, and others.

Doctors may be interested in The Nature Conservancy for several basic reasons; one, joining as members; two, notifying The Nature Conservancy of natural areas threatened with the bulldozer; three, they may be able to help patients with natural lands that the patient would like to see kept in its natural state and they (the patient) can't do it themselves.

The Nature Conservancy can help in many different ways, depending on individual circumstances.

In case any physician is interested in further information, he should feel free to contact me or any of the aforementioned.

N. G. Johnson, Trustee
Florida Chapter
the Nature Conservancy
Jacksonville

Dear Dr. Collins;

Thank you for a most useful issue; the October number. One can take this and pair it quite nicely with the December *National Geographic* and work up a telling presentation to almost any group, I think, and we are doing so for our own local medical society; however, the demand for extra copies of your Journal has exceeded the supply, please send me ten more.

I would call attention to indications that some may miss the point of Dr. Ragland's fine collection of messages. On page 11, in a brief editorial note, it is mentioned that "eco-catastrophe *may* develop." This is not a realistic appraisal; eco-catastrophe has *already* developed. The other dubious point in the same editorial comment was the direction of attention to "global" scale and "international" responsibility. What all of the authors are saying to us in this issue is that the responsibility lies with each of us, no matter what the others are doing or not doing. In other words, I seem to infer from the editorial note that "he cannot surely mean me and my friends." But surely, the responsibility must remain a personal one, and for professional men such as physicians, we must not fail to exercise noblesse oblige, even when—as in this ecocatastrophe—it means considerable belt-tightening beginning right where we live.

Again, let me thank you for this issue. It has taken considerable personal courage on your part to bring it off, and I congratulate you. Please convey my thanks also to your contributing editors.

Robert P. Hornsby, M.D.
Chairman, Health Problems Committee
The Knoxville Academy of Medicine
Knoxville, Kentucky

Dear Dr. Collins:

Congratulations on the series of articles in the October Journal dealing with the ecology issue. The thoughtful, authoritative essays are provocative and should be helpful in stimulating action aimed at solving the mounting problems of environmental pollution.

We will make use of the materials in efforts being made in the Atlanta area to alert all of us to these problems.

Robert P. Bynum, Regional Commissioner
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Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Exclude other possible causes of menopausal syndrome manifestations, such as pregnancy. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) similar to those seen with barbiturates have been reported following discontinuance of chlordiazepoxide HCl. Potential benefits of use in pregnancy, lactation or women of childbearing age should be weighed against possible hazards to mother and child. Clinical data inadequate on safety in pregnancy.

Precautions: In elderly and debilitated patients, limit dosage to smallest effective amount of chlordiazepoxide (initially 10 mg or less per day) to preclude ataxia or oversedation; increase gradually as needed and tolerated. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects—particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in patients with impaired renal or hepatic function. Paradoxical reactions to chlordiazepoxide (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in the treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation very rarely reported in patients receiving Librium® (chlordiazepoxide) and oral anticoagulants.

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*Slanger, A.: Med. Times *94*:150 (Feb.) 1966.

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THE PHARMACOLOGICAL BASIS OF THERAPEUTICS
3rd Edition, page 522



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The clinic at Mayo established by the University of Florida College of Medicine as an educational resource is providing valuable clinical experiences. Observations of two medical students were included in the article, "The University and Rural Health—A Year in Mayo, Florida," by Richard C. Reynolds, M.D., published in J.A.M.A. October 19, 1970.—Ed.

As an experience in medical education, the clinic offers several unique opportunities. The patient population is unselected, with the physical and emotional, the benign and the morbid, and the sub-clinical and the end stage of disease thrown together. A knowledge of human behavior and culture is essential in order to function efficiently in such a setting. Skill is required in the practice of meeting the needs of the patient as the patient sees them and in being able to withstand the anxiety, both yours and the patient's, of not being able to call the patient's difficulty by name or arrive at a diagnosis. In day-to-day practice of medicine this particular goal is achieved with clarity in only a small percentage of cases. It was fascinating to observe how the patient's concept of "good medical care" came to influence my approach to self-limited, generally benign processes.

Gary C. Hankins, MS4
(Class of 1969)

. . . a unique educational experience which augmented and beautifully complemented the referral nature of Shands Teaching Hospital. In Mayo I was usually the first "physician" to see the patient. . . . Diagnosis at Mayo had to be made without the sophisticated "knee jerk" laboratory procedures we all use at Shands Teaching Hospital. Physical examination and improvisation suddenly became more important. We had to think twice before getting a simple chest x-ray. Cost of medical care to the patient came to the forefront. . . . I was left with certain concepts of health care and the role of the LMD. These concepts can be appreciated in such a short time only in a very small community as Mayo. I became acutely aware of the frustrations of a referring physician trying to utilize Shands Teaching Hospital. In a sense, for the first time I was on the outside looking in.

Walter H. Murshall, Jr., MS4
(Class of 1969)

Biochemical Screening
A Critique

A biochemical screening program produces a great deal of laboratory data at small unit cost to the patient, but at considerable cost to the whole patient population. No evidence is available that its introduction is medically justified.

Robert C. Ahlvin, M.D.
New England Journal of Medicine
November 12, 1970

Multiphasic Health Testing and Medical Care as a Right

Although no long-term evidence exists that the course of disease is influenced by multiphasic health testing, this is largely irrelevant. Such programs are essential for other very important reasons. The existing and spreading concept of medical care as a right, with its elimination of personally paid fees, is creating a demand for periodic health checkups and health appraisals. This demand cannot be met by traditional methods totally involving the physician without great waste of doctor time. Multiphasic health testing can help separate the entry mix of patients into the well, the asymptomatic sick and the sick. This separation makes possible optimum use of physicians' services, which can be devoted to the area where they are most needed; the care of the sick.

Sidney R. Garfield, M.D.
New England Journal of Medicine
November 12, 1970

The best thing to give your enemy is forgiveness; to an opponent, tolerance; to a friend, your heart; to your child, a good example; to a father, deference; to your mother, conduct that will make her proud of you; to yourself, respect; to all men, charity.

Anonymous

General News



Dr. Hodes

Richard Hodes, M.D., of Tampa has been named a member of the Intergovernmental Relations Committee of the National Legislative Conference; under the aegis of the Council of State Governments.

Doctor Hodes, an anesthesiologist and a member of the Florida House of Representatives, was appointed to the committee by Maryland Senate President William S. James, President of the National Legislative Conference.

Rising Numbers of Lawsuits

The rising number of lawsuits against physicians poses a serious threat to quality surgical care and is increasing health costs, the American College of Surgeons has warned. The admonitions were contained in a statement attributed to the ACS Board of Regents and reads in part:

"Instead of attempting procedures which may cure the patient, but have a higher risk of failure and exposure to the threat of a lawsuit, some surgeons may prefer to use standard, proved, conservative methods which might bring relief to the patient, but will not cure him.

"The rash of lawsuits has driven many other surgeons to still another extreme. To protect themselves against possible litigation, they are being forced to order costly tests and elaborate x-rays which under normal conditions would not be required."

The ACS statement went on to say that since many insurance companies have stopped issuing Professional Liability insurance, some surgeons may give up their practice, thereby aggravating the problem of an already deficient supply of physicians. The Regents believe the problem extends beyond the profession and requires increased public awareness for its solution.

Military Medic Placement Program

Less than a year old, the joint HEW-Department of Defense program to bring discharged military medical personnel into the health professions has met with results that one official terms miraculous. Dr. John S. Zapp, HEW's acting deputy assistant for health manpower, adds that the program, MEDIHC (Military Experience Directed into Health Careers), is well ahead of schedule in setting up agencies throughout the U.S. He adds that "more and more professional organizations are basing their admission standards on what a serviceman knows rather than where he acquired the knowledge."

The Doctor Shortage

Are medical schools easing the doctor shortage? More than is generally realized. In the second half of the 1960s, for instance, the number of graduates jumped to 8,500 a year, up from 7,500 at the beginning of the decade and 7,800 at mid-decade. By the end of the 1970s, 12,000 M.D.s will be graduated each year, though rising health demands will reduce some of the gain.

Health Care Foundation

Bylaws for a health care foundation were adopted by the Duval County Medical Society at its November meeting.

The foundation concept provides the mechanism for prepaid comprehensive health aid programs in the Jacksonville area. All members of the Duval County Medical Society will be invited to join the program, and subscribers will have the freedom of choice as to participating doctors. Physicians will be paid standard fees for services rendered.

"We are now in the position to bid for any federal legislation or private insurance programs," according to Thad Moseley, M.D., President-Elect of the society and one of the prime movers in the creation of the program.

It was learned that the Blue Cross-Blue Shield and Prudential Life Insurance companies have already expressed interest in providing coverage through the foundation program.

Combined Doctor-Nurse Meeting

The American College of Surgeons will conduct its 18th combined meeting for doctors and nurses in New Orleans, March 15-17.

There will be scientific sessions in general surgery and in nine surgical specialties.

Florida physicians participating in the scientific program are: Edward R. Woodward, M.D., of Gainesville will serve on a panel on "Stress Ulcer" on Monday.

Also on Monday, there will be shown a film on "Radical Operation for Carcinoma of the Vulva During Pregnancy," prepared by Herby E. Averette, M.D. of Miami and Denis Cavanagh, M.D., of St. Louis.

A "How-I-Do-It Clinic" on Tuesday will feature James R. Jude, M.D., of Miami on "Cardiac Arrest."

A film on "Corneal Cryo-Preservation" will be shown on Tuesday by Herbert Kaufman, M.D. and Mr. Joseph A. Capella both of Gainesville.

Diran M. Seropian, M.D., of Ft. Lauderdale will participate in a "How-I-Do-It Clinic" on "Rhytidectomy" on Wednesday.

FHA Meeting

Almost 1,000 persons attended the annual meeting of the Florida Hospital Association and Allied Groups which was held at Daytona Beach in November.

The Association installed Mr. Ernest C. Nott Jr., as its president. Mr. Nott is administrator of Baptist Hospital in Miami.

FHA's new President Elect-Vice President is Mr. Donald W. Welch, administrator of the Florida Sanitarium & Hospital in Orlando.

Physician's Recognition Award

At least one state medical association has adopted the American Medical Association Physician's Recognition Award requirements as a prerequisite of membership.

According to a recent issue of the AMA's Continuing Medical Education Newsletter, the Pennsylvania Medical Society will insist on all of its members achieving the requirements of the award in order to retain medical society membership starting July 1, 1972.

The requirement was recommended to the Pennsylvania Society's Board of Trustees by its Council on Education and Science. The Council stated that "if the state society does not initiate steps for minimum standards of education, leadership will fall into other hands less aware of the problems involved."

The Physician's Recognition Award program was adopted by the AMA House of Delegates in December, 1968, to encourage member physicians to participate regularly in various programs of continued medical education. More than 16,000 doctors throughout the country applied for the award when it was first offered, and about three out of every four were found to be qualified.

The award is granted for a minimum total of 150 credit hours of postgraduate education that are earned over a period of three consecutive years. For example, the qualifying period for the 1970 award began on July 1, 1967, and ended on June 30, 1970. A physician who qualified for 1970 is issued a certificate that is valid for three years.



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Conference Headquarters — The Roosevelt Hotel
March 8, 9, 10, 11, 1971

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Alejandro F. Castro, M.D., Washington, D. C.
Colon and Rectal Surgery
Alexander A. Fisher, M.D., Woodside, L.I., N.Y.
Dermatology
Thomas P. Almy, M.D., Hanover, N. H.
Gastroenterology
Jack H. Hall, M.D., Indianapolis, Ind.
General Practice
Denis Cavanagh, M.D., St. Louis, Mo.
Gynecology
John T. Galambos, M.D., Atlanta, Ga.
Internal Medicine
Roger F. Palmer, M.D., Miami, Fla.
Internal Medicine
Nathan S. Schlezinger, M.D., Philadelphia, Pa.
Neurology
Ernest W. Page, M.D., San Francisco, Calif.
Obstetrics
Henry F. Allen, M.D., Boston, Mass.
Ophthalmology
Phillip L. Day, M.D., San Antonio, Tex.
Orthopedic Surgery
Edley H. Jones, M.D., Vicksburg, Miss.
Otolaryngology
John A. Shively, M.D., Columbia, Mo.
Pathology
Max D. Cooper, M.D., Birmingham, Ala.
Pediatrics
William B. Seaman, M.D., New York, N. Y.
Radiology
Robert S. Litwak, M.D., New York, N. Y.
Surgery
Edward R. Woodward, M.D., Gainesville, Fla.
Surgery
James F. Glenn, M.D., Durham, N. C.
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Lectures, clinicopathologic conference, round-table luncheons, medical motion pictures, technical exhibits, and entertainment for visiting wives.

This program is acceptable for twenty-two (22) prescribed hours and eight (8) elective hours by the American Academy of General Practice.

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ORGANIZATION

13th Annual Conference of
County Medical Society Presidents and Secretaries

Sponsored by the
FLORIDA MEDICAL ASSOCIATION, INC.
January 30, 1971
Robert Meyer Motor Inn
Orlando, Florida

The 13th Annual Conference of County Medical Society Presidents and Secretaries will be held on Saturday, January 30, 1971, under the sponsorship of the Florida Medical Association.

The session will begin at the Robert Meyer Motor Inn at 9:00 A.M. and will be completed that afternoon.

A Seminar on Medical Legislation will be held the following day, Sunday, beginning at 9:00 A.M. The program for the officers' conference on Saturday will include discussion of FMA organization, Workmen's Compensation, medical education, hospital-based physicians, osteopathy, medical peer utilization review, Florida Health Manpower Council, the legislative program, school health and foundations for medical care.

James T. Cook, M.D., of Marianna, President of the Florida Medical Association, expressed the hope that all component medical societies will be represented at the conference. Doctor Cook will preside at the morning session and will present the introductory remarks.

Richard C. Dever, M.D., of Miami, FMA Vice President, will preside at the Seminar on Medical Legislation on Sunday, January 31.

The program for the Conference of County Medical Society Presidents and Secretaries on Saturday will be as follows:

MORNING: Presiding—James T. Cook, M.D., President

9:00 Registration
9:15 Introductory Remarks—Dr. Cook
9:30 Organization of FMA—Robert E. Zellner, M.D., Chairman, Ad Hoc Committee to Study the Structure of the FMA, Orlando
10:00 Workmen's Compensation—Joseph G. Matthews, M.D., Chairman, Ad Hoc Committee on Workmen's Compensation, Orlando
10:30 Coke and Coffee Break
10:45 Florida Plan for Medical Education—Dr. Kenneth E. Penrod, Vice Chancellor for Medical Affairs, Florida State University System, Tallahassee
11:15 Hospital Based Physicians; Osteopathy—John J. Cheleden, M.D., Chairman, Judicial Council, Daytona Beach
11:45 Recess
12:15 Buffet Luncheon (Complimentary)
"The National Medical Scene"—Ernest B. Howard, M.D., Executive Vice President, American Medical Association, Chicago

AFTERNOON: Presiding—Floyd K. Hurt, M.D., President-Elect

2:00 Medical Peer Review—James B. Byrne, M.D., Chairman, Committee on Peer Medical Utilization Review, Miami
2:30 Florida Health Manpower Council—Irving E. Hall Jr., M.D., President, Bradenton
3:00 Activities of Woman's Auxiliary to the FMA—Mrs. Arnold J. Spanjers, President, Winter Haven

3:15 Coke and Coffee Break

3:30 FMA Legislative Program, National and State—Joseph C. Von Thron, M.D., Chairman, Council on Legislation and Public Agencies, Cocoa Beach

4:00 School Health—Wesley S. Nock, M.D., Chairman, Committee on Child Health, Coral Gables

4:30 Foundations for Medical Care—Thad Moseley, M.D., Chairman, Florida Medical Foundation Committee on Foundations for Medical Care, Jacksonville

6:00 Reception

Sunday, January 31

8:00 Editor's Breakfast — Presiding: Clyde M. Collins, M.D., Editor

Seminar on Medical Legislation

Presiding—Richard C. Dever, M.D., Vice President

9:00 Joseph C. Von Thron, M.D., Chairman, Council on Legislation and Public Agencies, Cocoa Beach

Sanford A. Mullen, M.D., Chairman, Committee on State Legislation, Jacksonville

(Program to be announced)

To Promote Better Medical Care in Florida

One of the noteworthy projects of organized medicine in Florida is to help bright young men and women get a medical education through a loan program.

A large source of student loan money is the Florida Medical Foundation, whose President is Eugene G. Peek Jr., M.D., of Ocala.

Established by the FMA House of Delegates in 1956 "to promote better medical care in Florida," the Foundation has a half-dozen objectives, including assistance to Florida residents who need financial assistance to complete their medical education.

The Loan Guarantee Plan for medical students, interns and residents became operational in 1965. At the present time, lending capacity is in the neighborhood of $250,000. During the year ending March 31, 1970, the Foundation approved 31 applications totaling $45,000.

In addition to the Foundation's own loan funds, monies have been channeled through the Foundation by the Dade County Medical Association, Florida Academy of General Practice, Medical Center Clinic of Pensacola, Florida Association of General Surgeons (for resident physicians), Florida Association of Industrial and Railway Surgeons and the Palm Beach County Medical Society.

Members of the FMA Woman's Auxiliary for many years have shared with their husbands a compassion for deserving medical students. Individual Auxiliary members have spent countless hours raising funds for the American Medical Association Education and Research Fund (AMA-ERF).

AMA-ERF funds support grants for medical schools throughout the country as well as a student loan program.

Through various fund raising activities, including a Benefit Art Show, FMA's Auxiliary raised $15,817.18 for AMA-ERF in 1968, and increased this to $19,343.91 last year. Through last October, another $10,224.92 had been raised by the Auxiliary, with more to be reported between that time and the year's end.

Florida physicians also have been consistent supporters of AMA-ERF, although their donations have not kept pace with those of the women. The doctors gave $13,527.99 in 1968, $10,057.00 in 1969, and $6,525.00 for the first 10 months of the year.

Professional Liability

Robert J. Brennan, M.D.

A continuing rise in claims will result in another increase in premiums under the FMA-sponsored Professional Liability Insurance Program, effective January 2, 1971.

On and after that date, new enrollees in the program will have to pay premiums averaging about 30 per cent above the current rates. Members already enrolled in the program on January 1, 1971, will not be affected by the increase until January 2, 1972.

At a recent meeting in Miami, the FMA Committee on Professional Liability was advised that premiums under the group program will remain below Bureau rates.

A review of the FMA program indicates that between 1963 and June 30, 1970, losses including cost of investigation and defense totaled $2,992,004. In several of the 21 categories of claims, the cost of defense actually exceeded the total of award and settlement.

Technical surgical error was far and away the largest cause of action in terms of loss and dollars expended with a total of $1,094,809. Others in the "Top 10" included: Improper diagnosis or treatment not involving surgery, $489,511; Adverse reaction to drugs, $319,735; Improper anesthesiology, $259,817; Injury to mother in childbirth, $136,804; Improper treatment of fractures, $86,833; Foreign body left in patient during surgery, $83,163; Disfigurement from surgery, $77,282; Infection in surgical site, $71,247; and Injury to child in childbirth, $53,861. Rates for 1970 and 1971 are shown in Table 1.

The FMA-sponsored program got underway in 1961 after more than ten years of study of the liability problem by Association officers. The program, offered by Employers' Fire Insurance Company, features centralized claim handling, centralized legal coordination, active opposition to any unwarranted suits in the courts, review of underwriting before denial of a member's application, and medical review of reported claims.

At the present time more than 4,200 FMA members are participating in the program.

Coverage under the program may be obtained from your local insurance agent or Marsh & McLennan, the administrators of the program.

Dr. Brennan, 3471 North Federal Highway, Fort Lauderdale 33306.

Dr. Brennan is Chairman, FMA Committee on Professional Liability Insurance.

Table 1.—Annual Premiums for $100,000/$300,000 Coverage‡ (1970-1971)

Class	Dade County		Broward County		Remainder of State	
	1970	1971**	1970	1971**	1970	1971**
1. Physicians-no surgery	$ 285	$ 446	$ 168	$ 446	$ 168	$ 263
2. Physicians-minor surgery	500	777	295	777	295	463
3. Surgeons*	855	1,686	505	1,686	505	1,002
4. Surgeons*	1,140	2,245	673	2,245	673	1,334
5. Surgeons*	1,425	2,809	842	2,809	842	1,667

* Class 3 consists of Cardiologists doing catheterization but not cardiac surgery; Ophthalmologists, Proctologists and General Practitioners who perform major surgery.

Class 4 consists of General Surgeons, Cardiac Surgeons, Otolaryngologists (no plastic surgery), Thoracic Surgeons, Urologists and Vascular Surgeons.

Class 5 includes Anesthesiologists, Neurosurgeons, Obstetricians, Gynecologists, Orthopedists, Otolaryngologists (plastic surgery), and Plastic Surgeons.

‡ Premiums quoted apply only to solo practitioners; premiums for partnerships are 20 per cent higher.

** These premiums apply only to members already enrolled in the program on January 1, 1971.

(Continued on page 63)



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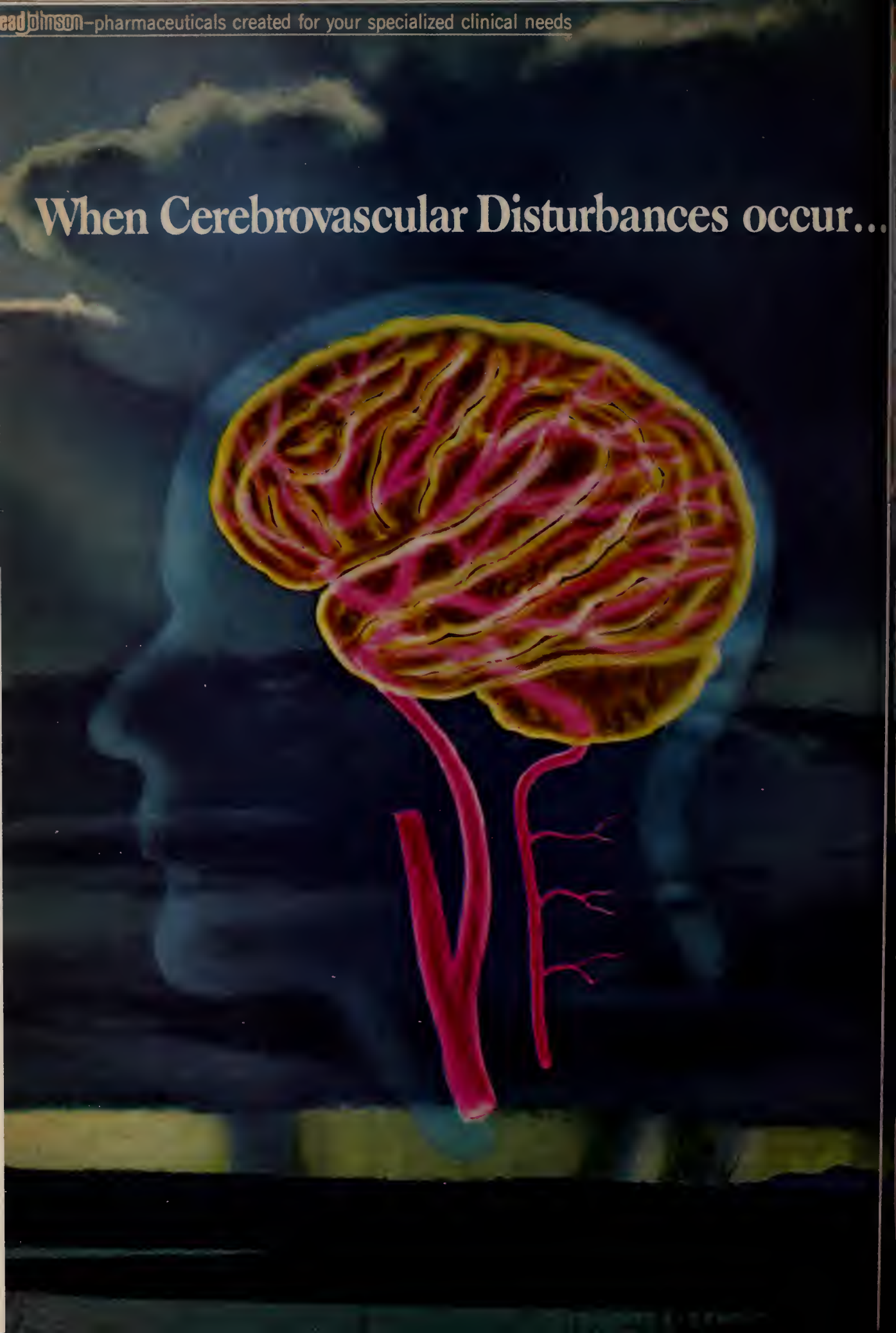
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Although not all clinicians agree on the value of vasodilators in vascular disease,[1] several investigators[2-5] have reported favorably on the effects of isoxsuprine on cerebral blood flow. Effects have been demonstrated both by objective measurement[2,5] and observation of clinical improvement.[2-4]

Indications: Cerebrovascular insufficiency, arteriosclerosis obliterans, diabetic vascular diseases, thromboangiitis obliterans (Buerger's disease), Raynaud's disease, postphlebitic conditions, acroparesthesia, frostbite syndrome and ulcers of the extremities (arteriosclerotic, diabetic, thrombotic). **Composition:** VASODĪLAN tablets, isoxsuprine hydrochloride 10 mg. and 20 mg. **Dosage:** Oral—10 to 20 mg. t.i.d. or q.i.d. **Contraindications and Cautions:** There are no known contraindications to recommended oral dosage. Do not give immediately postpartum or in the presence of arterial bleeding. **Side Effects:** Occasional palpitation and dizziness can usually be controlled by dosage reduction. As intramuscular administration of 10 mg. or more may cause brief hypotension and tachycardia, single intramuscular doses exceeding this amount are not recommended. Complete details available in product brochure from Mead Johnson Laboratories. **References:** (1) Fazekas, J. F.; Alman, R. W.; Ticktin, H. E.; Ehrmantraut, W. R., and Savarese, C. J.: Angiology *15*:No. 2 (Feb.) 1964. (2) Horton, G. E., and Johnson, P. C., Jr.: Angiology *15*:70-74 (Feb.) 1964. (3) Clarkson, I. S., and LePere, D. M.: Angiology *11*:190-192 (June) 1960. (4) Dhrymiotis, A. D., and Whittier, J. R.: Curr. Ther. Res. *4*:124-128 (April) 1962. (5) Whittier, J. R.: Angiology *15*:82-87 (Feb.) 1964.

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Problems of Political Medicine
Report of Board of Trustees AMA

A summary of priorities for maximum utilization of physician time in meeting the country's health service needs was adopted by the American Medical Association's House of Delegates during the Clinical Convention in Boston on December 4.

Known officially as "Report U of the Board of Trustees," the document is essentially the comments of AMA House Speaker Russell Roth, M.D. Dr. Roth's comments were presented to the Department of Health, Education and Welfare after the Board of Trustees discussed a national health program with Roger Egeberg, M.D., Assistant Secretary for Health.

The Executive Committee of the Florida Medical Association was particularly impressed by the report and recommended to the editors of the JOURNAL that it be reprinted in this issue. This very well expresses the views of Florida's delegates to the A.M.A.

The report is as follows:

Thesis:

The principal resource for meeting the medical service needs of the nation is the existing supply of practicing physicians.

1st priority is for using effectively those practicing physicians we now have.

2nd priority is to do those things which may be done to increase the productivity of physicians.

3rd priority is to augment the number of physicians.

4th priority is to use the physician effectively in his role as a conservator of expenditures by and in behalf of his patients.

Considerations in respect to the 1st priority (effective use):

There has been a substantial "flight from practice," and especially from general practice, which has intensified our problems in the delivery of medical service. The factors which have caused this exodus from direct patient care should be recognized and, to the extent possible, eliminated. There has also been the disturbing fact that although new physicians are being trained at a rate well exceeding the rate of general population growth, these young doctors are not being motivated to enter into direct patient care in the areas of greatest need. If we wish to hold on to our current supplies of active practitioners and to increase them in a rational fashion there are certain things that we should do, and a number of things which we assuredly should not do.

1.—In the existing climate of the United States efforts to regiment, conscript, or apply economic sanctions to the medical profession are destined to make matters worse rather than better. They have the effect of driving even more physicians from active practice into research, teaching, administrative medicine, more narrow specialization or premature retirement.

2.—Promises on the part of government that practicing physicians will deliver even more health service to beneficiaries than they are now able to produce under stress conditions force still more physicians to seek refuge from the pressures.

3.—The practicing physician is confronted with increasing costs of living and of doing business. In a generally uncontrolled economy measures which would freeze the income levels of physicians, eliminating their ability to adjust to the economic environment are discriminatory and lead to still further departures from active practice.

4.—The individual physician has limited opportunity or capacity to respond to overall societal demands. These responses are best made by physicians collectively, acting in concert through their professional associations. It is in the best interests of the nation that professional organizations be aided and abetted in their cooperative efforts. To denigrate them and to give them adverse tax treatment reduces their capacities and their resources for constructive input.

5.—It has been proposed in several legislative bills that bonus dollars will motivate physicians to establish practices in rural and urban shortage areas. The fact is that large numbers of physicians who have been providing service in those areas leave lucrative practices for less rewarding circumstances in which the offsets are such things as personal and family security, im-

proved educational facilities, or a lessened pressure of patient demand.

6.—Prepaid comprehensive group practice has been "discovered" as a potential answer to most of the delivery problems. Rechristened "Health Maintenance Organizations," these arrangements for practice are offered as a panacea without recognition of the fact that such groups have been encountering serious problems of their own, that many patients do not wish to enroll in such plans, and that many physicians have no interest in practicing in them. The many variations of this approach deserve support as competitive mechanisms with a chance to prove such superiorities as they may develop in respect to quality, efficiency and economy, but to attempt to force all physicians into a rigid pattern of salaried group practice could be the most destructive move made by government.

7.—Plans which would base the entire delivery system of medical service upon "primary physicians" with responsibility for channelling patients and regulating payments to consultants, specialists and the like betray a lack of understanding as to how medicine is practiced.

8.—The willingness of physicians to participate in and to be subject to peer review in respect to the quality and quantity of their services and the charges made therefor are encouraging. This should be supported, not discounted. The prospect of evaluation by non-medical reviewers, or medical reviewers hired by non-medical agencies is a strong deterrent to cooperation.

In summary, to keep physicians in active practice, rather than to disperse them, government should abandon emphasis on prepaid comprehensive group practice although it may still support it. It should uphold the principle that a physician should be expected to charge his usual fees to all patients and should depend on a strengthened system of peer review to guarantee that such usual fees will conform with customary fees and be kept within the ranges of what can be defined as "reasonable." Mathematical formulae for freezes and arbitrary percentiles should be abandoned. It should probably be accepted that highly trained physicians cannot be attracted into practice in rural areas or in many slum areas, and alternative mechanisms for the provision of adequate medical service should be developed.

Considerations in respect to the 2nd priority (increased productivity):

1.—There is, in general, little opportunity to increase the productivity of the average practicing physician by simple extensions of his working hours. Actually current enthusiasm for group practice formulae seem to be retrogressive inasmuch as it is represented to the physician who is currently working 60-70 hours per week that under group practice arrangements he may reduce this to 50 or less hours per week. Scattered figures may be cited to support the idea that 100 physicians in solo practice actually provide service to more patients per week than do 100 physicians in group practice of any type.

2.—The multiple experimental programs of Medex, Duke University, the American Urological Association, and scores of others to develop support to the practicing physician deserve subsidy and assistance. At the same time serious attention must be paid to the medical practice acts of the several states, to factors of professional liability, insurance coverage, and the like.

3.—Restrictive provisions in such programs as Medicare and Medicaid which make it economically unfeasible for physicians to delegate to others—especially to interns, residents and office assistants—the provision of appropriate services should be eliminated or readjusted.

4.—Government has taken an unproductive and adverse position in respect to those physicians who have appeared to earn "too much" money from federal and state programs. Instead of the antagonistic approach of questioning the financial "take" by such persons, focus should be on requesting "peer review" of the quality of care offered by these mass producers. It may be good.

5.—Many physicians are dissuaded from, or become disenchanted with, efforts to provide medical service for federal and state program beneficiaries because of relatively low compensation, excessive paper work, and an exposure to adverse publicity because of payments received. This should be corrected. Physicians willing to devote themselves to this type of work in volume should be praised rather than denigrated for their efforts.

Consideration in respect to the 3rd priority (augmentation of physician numbers):

1.—Support to the educational roles of medical schools should be clearly separated from support to medical research so that the latter is not used as a subterfuge for the building of a medical school faculty, or the underwriting of medical school operations.

2.—As much attention should be devoted to keeping in clinical practice of medicine those physicians who we have as to the training of more physicians.

3.—A positive program of public relations dedicated to making the clinical practice of medicine attractive to oncoming generations of young Americans would be more productive than a campaign to picture physicians as entrepreneurs requiring regimentation and control.

4.—Serious attention should be given to the problem of professional liability insurance and the jeopardy in which the practicing physician finds himself today. It is no small matter that the new physician finds that he must pay from two to ten thousand dollars per year in malpractice insurance premiums before he feels safe to treat his first patient. It is equally important to recognize that many active practitioners are being forced from practice by the inability to purchase, at any reasonable figure, adequate liability insurance. The answer does not lie in finding new "carriers" for the insurance. It lies in legal reforms governing liability.

Considerations in respect to the 4th priority (conservator of public expenditures):

1.—"Peer Review" is the governing concept which requires support. To dilute it with lip service to consumer representation is not helpful. The medical profession needs to be supported in the outstanding progress which it has made in the past decade in the perfection of peer review techniques.

2.—Indoctrination in peer review should be looked upon as a proper role of national, state and county medical societies for incorporation into medical school curricula and hospital intern and residency training programs.

3.—Techniques of education for the practicing physician in the relationship between hospitalization, physician orders and prescribing practices and the expenditures mandated for patients or those who pay their bills should be advanced.

4.—Considerable attention should be given to the thought that when a physician is salaried, or otherwise divorced from the fee-for-service method of compensation, he is insulated from a specific interest in how his services or his authorizations for service have impact upon the economics of medical care.

Ad Hoc Committee on Drug Abuse

The organizational meeting of the FMA's Ad Hoc Committee on Drug Abuse was held on November 17, 1970, at the FMA headquarters in Jacksonville with the chairman, Robert P. Johnson, M.D., of Tallahassee presiding.

The committee is composed of members of FMA as well as representatives of the pharmacy, the clergy, the Bar, law enforcement, education, Woman's Auxiliary to the FMA, and others.

Dr. Johnson asked the members present to estimate the scope of the drug abuse problem in their areas and to tell what measures are underway to combat it. The consensus was that probably no one knows the exact extent of the situation in any given area of the state.

Mr. Louis V. Morelli, Director of the Florida Department of Education's drug abuse training program for teachers, reported on the progress of that project. The committee went on record as commending Mr. Morelli and his department for their outstanding efforts in this regard.

The role of the Florida Department of Law Enforcement in combating drug abuse was described by Mr. Willis D. Booth of Tallahassee, a special agent for the department. Mr. Booth said adequate information concerning possession and sale of drugs should become available in January, 1971, when a uniform crime reporting system will be launched in Florida.

Members of the committee expressed concern

about the extended period of time that elapses between a suspect's arrest and his eventual trial. They decided to investigate the situation on a locality by locality basis for consideration at the next committee meeting.

There was considerable discussion about the drug Numorphan and concern was expressed that physicians may be overprescribing it. The committee went on record as requesting that physicians prescribe this drug for only terminal cancer patients. It also recommended more restrained writing for "diet pills" and other such drugs.

The committee also decided to undertake sponsorship of one-day seminars for physicians which would cover the doctor's role in drug abuse. Topics for these seminars would include treatment of addicts, counseling of drug abusers, and management of overdoses.

The committee, created by the FMA House of Delegates last May, will have its next meeting on January 27 at Hollywood.

Flampac Speaker

U.S. Sen. Barry M. Goldwater (R-Ariz) Republican nominee for President in 1964 will be among speakers at the 97th Annual Meeting of the Florida Medical Association.

Senator Goldwater will address a luncheon sponsored by the Woman's Auxiliary to the FMA and the Florida Medical Political Action Committee. It will be held beginning at 12:15 p.m. on Friday, May 7, at the Hotel Americana in Bal Harbour, Florida.

A native of Phoenix, Arizona, Senator Goldwater was educated in the public schools there and at Staunton Military Academy in Virginia. He also attended the University of Arizona.

He is a veteran of World War II, and he retired from the United States Air Force Reserves at the rank of Major General.

Senator Goldwater launched his political career in 1949 when he was elected to the City Council of Phoenix on a reform ticket.

Three years later he was elected to his first term in the Senate and was reelected in 1958.

After his unsuccessful Presidential Campaign, the voters of Arizona returned Senator Goldwater to the Senate in 1968.

New Nilcol- A Comprehensive Formula:

DESCRIPTION	Contents in mg Tablet	Elixir— each 15 ml
phenylpropanolamine HCl	50	25
chlorpheniramine maleate	4	2
glyceryl guaiacolate	200	100
dextromethorphan HBr	30	15
alcohol		10%

The scored, elliptical tablet is light violet. The elixir is deep violet in color and grape-flavored.

ACTIONS Each component of Nilcol has been selected to provide symptomatic relief of congestion and cough in upper respiratory disorders.

Phenylpropanolamine hydrochloride is a vasoconstrictor which reduces congestion of the nasopharyngeal mucosa. Chlorpheniramine maleate, a widely used antihistamine, helps to control allergic symptoms. The expectorant is glyceryl guaiacolate which helps to increase the secretion and decrease the viscosity of fluids of the respiratory tract. Dextromethorphan is a well-known, centrally acting antitussive. Nilcol may minimize the need for topical decongestants.

INDICATIONS Nilcol is indicated for nasal and bronchial congestion; coughs and other symptoms of respiratory infections including influenza and the common cold; other respiratory conditions such as sinusitis, allergic rhinitis or hay fever.

CONTRAINDICATION Hypersensitivity to any ingredient.

PRECAUTIONS Because of the possibility of drowsiness, patients should be cautioned against driving and operating machinery. Administer with caution to patients with hyperthyroidism, hypertensive cardiovascular disease, diabetes mellitus and liver disease. Use in pregnancy is not recommended.

ADVERSE REACTIONS Anxiety, restlessness, tension, insomnia, tremor, weakness, headache, vertigo, sweating, nausea, and vomiting may possibly occur.

SUPPLIED Tablets in bottles of 100. Elixir in bottles of 32 fl oz (1 qt) with dosage cups. N-GP-11-4C

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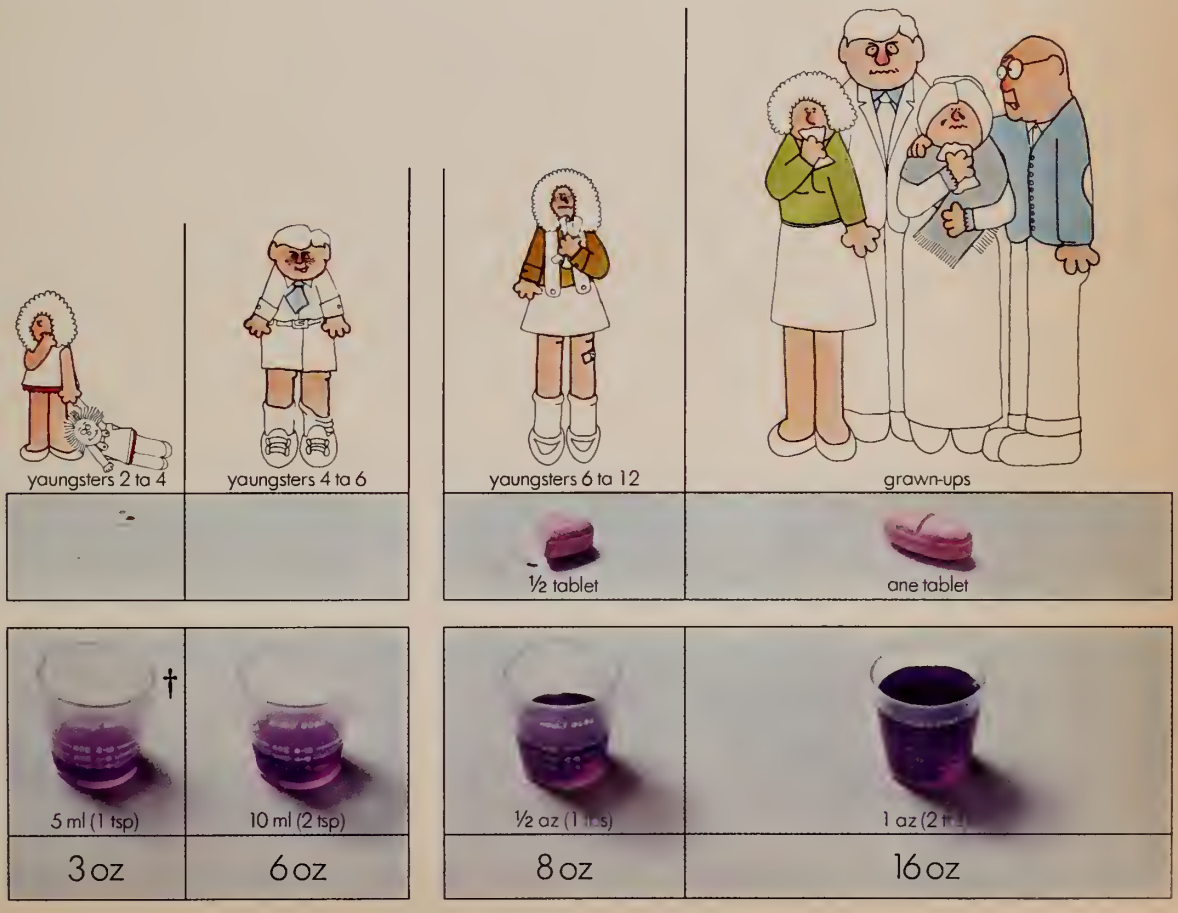
*Not for infants under 2 years of age.

New Nilcol™ Rx Tablets/Elixir

Each scored tablet contains: Phenylproponolomine HCl 50 mg, Chlorpheniromine maleate 4 mg, Glyceryl guaiacolate 200 mg, Dextromethorphon HBr 30 mg.
Each 15 ml of elixir contains: Phenylproponolomine HCl 25 mg, Chlorpheniromine maleate 2 mg, Glyceryl guaiacolate 100 mg, Dextromethorphon HBr 15 mg, alcohol 10%.

An Expectorant • An Antihistamine
A Decongestant • A Non-Narcotic Antitussive

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MEETINGS

Approved by FMA
Committee on Postgraduate Education

JANUARY

7-10 Eighth Annual Postgraduate Seminar in Anesthesiology, "Anesthesia and the Nervous System," Diplomat Hotel, Hollywood. For information: Jordan Katz, M.D., University of Miami School of Medicine, Box 875, Biscayne Annex, Miami 33152.

11-12 Infectious Diseases 1971—Treatment and Prevention, Eden Roc Hotel, Miami Beach. For information: Mrs. Gwen Hendel, Public Relations Office, Mt. Sinai Hospital, Miami Beach 33140.

11-16 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

13-16 Postgraduate Seminar in Surgery Art and Science in the Therapy of Difficult Problems in Surgery, Eden Roc Hotel, Miami Beach. For information: Robert Zeppa, M.D., University of Miami School of Medicine, Box 875, Biscayne Annex, Miami 33152.

24-28 University of Miami Annual Seminar on Pediatric and Adult Urology, Sheraton Four Ambassadors Hotel, Miami. For information: Michael P. Small, M.D., University of Miami School of Medicine, Box 875, Biscayne Annex, Miami 33152.

24-28 Practical Pediatrics, Deauville Hotel, Miami Beach. For information: Donald H. Altman, M.D., 6125 S.W. 31st St., Miami 33135.

27-29 Current Problems in Regulation of Ionizing Radiation, St. Joseph's Hospital, Tampa. For information: Waldo D. DeVore, M.S., St. Joseph's Hospital, 3001 W. Buffalo Ave., Tampa 33607.

FEBRUARY

2 Second Medical Education and Research Conference, St. Joseph's Hospital, Tampa. For information: Charles S. Thomas, Dir., Community Relations, St. Joseph's Hospital, 3001 W. Buffalo Ave., Tampa 33607.

13-14 Orange Memorial Hospital and Emory University present "Two Days of Gastroenterology," Red Auditorium, Orlando. For information: Freeman H. Cary, M.D., Dir. of Medical Education, Orange Memorial Hospital, Orlando 32806.

14-19 University of Miami School of Medicine presents "Medical Diagnosis: Truths, Neartruths and Nontruths," Sheraton Four Ambassadors, Miami. For information: J. Bocles, M.D., U. of Miami School of Medicine, Box 875, Biscayne Annex, Miami 33152.

20 Florida Association of General Surgeons, "Practical Aspects of General Surgery," Duval Medical Center, Jacksonville. For information: Clyde M. Collins, M.D., 1503 Oak St., Jacksonville 32204.

22-27 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

MARCH

6 Fifteenth Watson Clinic Annual Seminar, Watson Clinic, Lakeland. For information: Brunildo A. Herrero, M.D., Watson Clinic, Lakeland 33802.

9-13 "Selected Topics in Roentgendiagnosis; Radiologic-Pathologic Correlations," Fontainebleau Hotel, Miami Beach. For information: Manuel Viamonte Jr., M.D., University of Miami School of Medicine, Box 875, Biscayne Annex, Miami 33152.

14-17 Special Procedures in Diagnostic Radiology, Eden Roc Hotel, Miami Beach. For information: Mrs. Gwen Hendel, Mt. Sinai Hospital, Miami Beach 33140.

17-20 Third Teaching Conference in Clinical Cardiology, Sheraton Four Ambassadors, Maimi. For information: Michael S. Gordon, M.D., University of Miami School of Medicine, Box 875, Biscayne Annex, Miami 33152.

22-27 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

APRIL

19-24 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

23-24 Seminar on Arthritis and Related Diseases, Sheraton Hotel, Jacksonville. For information: William B. Thirlwell, 2522 Oak St., Jacksonville 32204.

MAY

3- 8 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

24-29 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

MARCH

1- 6 Society for Cryosurgery, Diplomat Hotel and Country Club, Hollywood. Sec.: Society for Cryosurgery, 30 N. Michigan Ave., Chicago 60602.

7-12 American College of Chest Physicians, "Problems and Approaches to Diagnosis and Management of Cardiopulmonary Failure," University of Miami School of Medicine, Miami Beach. For information: Charles F. Tate, M.D., 1000 N.W. 17th St., Miami 33136.

14-18 International Anesthesia Research Society, Americana Hotel, Miami Beach. Ex. Sec.: B. B. Sankey, M.D. 3645 Warrensville Center Rd., Cleveland 44122.

24-26 American Surgical Association, Boca Raton Hotel and Club, Boca Raton, Sec.: G. Thomas Shires, 5323 Harry Hines Blvd., Dallas 75235.

APRIL

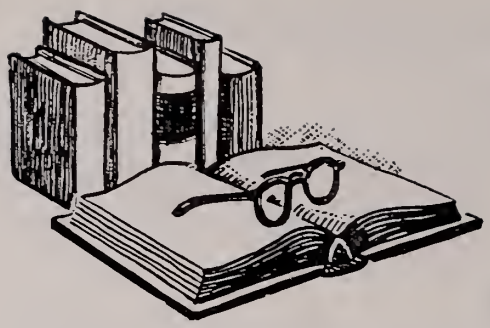
18-22 Southeastern Surgical Congress, Americana Hotel, Miami Beach. Sec.: A. H. Letton, M.D., 340 Blvd., N.E., Atlanta 30312.

MAY

12-15 American Gastroenterological Association, Americana Hotel, Miami Beach. Sec.: H. D. Janowitz, M.D., 11 E. 100th St., New York 10029.

AUGUST

30-Sept. 2 Third Western Hemisphere Nutrition Congress, Americana Hotel, Miami Beach. For information: Council on Foods and Nutrition, American Medical Association, 535 North Dearborn St., Chicago, Ill. 60610.



Book Reviews

Water and Electrolyte Metabolism and Acid-Base Balance by Edward Muntwyler, Ph.D. Pp. 169. 33 illustrations. Price $5.85. St. Louis, The C. V. Mosby Company, 1968.

With a logical sequence and concentration on clinical situations the author of this short monograph has succeeded in presenting a clear presentation of a difficult aspect of medicine. The monograph, based on lecture notes given by the author, combines the dynamics of human physiology and biochemistry in a manner not equalled by some larger texts. The illustrations are clear, the mathematics straight-forward, and the clinical applications are appropriate. Bold-face print is freely used to introduce the contents of paragraphs and to assist the reader in reviewing. Of necessity, each topic is stripped to fundamentals, but a long and erudite bibliography is available to satisfy the reader interested in pursuing a particular topic in depth. This monograph should be valuable to the student as an introduction to this challenging subject as well as to the busy physician who wishes to review the principles on which he bases his clinical decisions.

Harry W. Eichenbaum, M.D.
St. Petersburg

How to Live With Hypoglycemia by Charles Weller, M.D. and Brian Richard Boylan. Pp. 130. Price $4.50. New York, Doubleday & Company, Inc., 1968.

In this short book written for the layman, the authors attempt to examine the history, physiology, and management of a difficult medical problem and its closely related disorders. The attempt is successful insofar as it touches many bases, but fails to fulfill the promise implied by the title. For example, instead of providing typical daily feeding plans, over thirty pages of this 130 page book contain a table indicating the carbohydrate, fat, and protein content of 500 common foods, a list readily obtained elsewhere.

The numerous illustrations are simple, but they do make their points and assist in understanding the text. The many case histories, all stereotyped, appear more for the benefit of medical sensationalism than for the subject at hand.

In short, this book may serve as a layman's introduction to the subject, but the intelligent and curious patient will probably seek out supplementary reading.

Harry W. Eichenbaum, M.D.
St. Petersburg

Prematurity and the Obstetrician by Denis Cavanagh, M.D. and M. R. Talisman, M.D. Pp. 542. Price $16.50. Illustrated. New York, Appleton-Century, Crofts, Division of Meredith Publishing Company, 1969.

Doctors Cavanagh and Talisman along with several contributors, many from the University of Miami, have written an excellent book dealing with the greatest problem that we face in obstetrics today. The different sections deal with the overall view and scope of the problem of prematurity; the various maternal, fetal and iatrogenic factors; and the management of labor, delivery, and the care of the premature infant. The book provides a comprehensive review of all of the data available in the various related fields, and is one that has long been needed in this area. My only small criticism is that some of the statistics seem outdated.

While the book stresses the need for a multidisciplinary and team approach to the problem, it will be of primary interest to those of us who practice obstetrics. It should be required reading for all physicians, and perhaps other personnel, connected with the various maternal health projects for the underprivileged who contribute so much to the problem of prematurity. It is here that the greatest initial advances can be made.

Robert E. McCammon, M.D.
Tampa

(Continued on page 71)

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The Care of the Geriatric Patient edited by E. V. Cowdry, Ph.D., Sc.D. Pp. 430. 19 illustrations. Price $15.75. St. Louis, The C. V. Mosby Company, 1968.

"The Care of the Geriatric Patient" is the third edition of a book that grew out of a geriatric symposium in 1955. Like many multi-author books, it suffers from unevenness in writing from chapter to chapter. Some aspects of care are covered many times in several different chapters, while others are only touched on briefly. The book succeeds in providing a comprehensive but superficial view of geriatric medical care.

The philosophy of physician selection and the physician-patient relationship expressed in the first chapter makes excellent sense. Several chapters covering the geriatric patient in the community, living arrangements for the elderly, selecting a nursing home and home care could well be combined into one more comprehensive chapter that would make finding related items of information easier. The sections on various aspects of medical and surgical care are loosely organized.

Possibly most useful for the practicing physician would be the sections on the psychological and psychiatric problems, sexual aspects, and an excellent chapter on exercise. Chapters on dental, ophthalmic and ENT problems give valuable emphasis to areas of the routine medical examinations which we may tend to treat lightly in the presence of potentially more serious medical and surgical abnormalities. Proper care of the teeth, eyes and ears, all of which tend to function poorly in the elderly, cannot only prolong life but enrich its quality.

The underlying theme of the book is not only medical care but the maintenance of enjoyable independent life for the geriatric patient. The experienced family physician could probably have written most of this book himself. Anyone else who cares for geriatric patients should read it.

LAWRENCE H. JACOBSON, M.D.

Learn as if you might live forever
Live as if you might die tomorrow.

Anonymous

Books Received

Receipt of the following books is acknowledged. While time and space will not permit review of all books received, medical readers interested in reviewing particular books are invited to address requests to the Editor. Following acceptance of a written review for publication, a reviewer may then retain the book reviewed for his personal or favorite library.—Ed.

War Surgery by Camp H. M. Smith. Pp. 97. Department of Defense, Pacific Command, United States of America, 1969.

The Adolescent Patient by William A. Daniel Jr., M.D. Pp. 444. 76 illustrations. Price $20.50. St. Louis, The C. V. Mosby Company, 1970.

Spectroscopic Approaches to Biomolecular Conformation edited by D. W. Urry. Pp. 314. Illustrated. Price $15.00. Chicago, American Medical Association, 1970.

Current Dermatologic Management edited by Stuart Maddin, M.D. Illustrated. Pp. 330. Price $38.75. St. Louis, The C. V. Mosby Company, 1970.

Wine and the Digestive System by Salvatore Pablo Lucia, M.D. Pp. 157. Price $3.50. San Francisco, Fortune House Publishing, 1970.

Introduction to Medical Science by Clara Gene Young and James D. Barger, M.D. Pp. 295. Price $7.95. Illustrated. St. Louis, The C. V. Mosby Company, 1969.

Appraisal of Current Concepts in Anesthesiology (Vol. 4) by John Adriani, M.D. Pp. 464. Price $12.00. St. Louis, The C. V. Mosby Company, 1968.

Vital Statistics of the United States 1967, Volume III—Marriage and Divorce by U.S. Department of Health, Education, and Welfare. Pp. 53. Price $1.25. Washington, D. C., U. S. Government Printing Office, 1970.

Urological Surgery. 4th Ed. by Austin Ingram Dodson Jr., M.D. Pp. 617. Price $32.50. 694 illustrations. St. Louis, The C. V. Mosby Company, 1970.

The Early Orthopaedic Surgeons of America by Alfred Rives Shands Jr., M.D. Pp. 190. Illustrated. Price $15. St. Louis, The C. V. Mosby Company, 1970.

The Immunology of Malignant Disease by Jules E. Harris, M.D. and Joseph G. Sinkovics, M.D. Pp. 251. Illustrated. Price $15. St. Louis, The C. V. Mosby Company, 1970.

The Face in Genetic Disorders by Richard M. Goodman, M.D. and Robert J. Gorlin, D.D.S., M.S. Pp. 169. Illustrated. Price $19. St. Louis, The C. V. Mosby Company, 1970.

Classified Ads

physicians wanted

General Practitioners

EXCELLENT OPPORTUNITY for general practitioner in community of 15,000; central Florida; 76-bed JCAH hospital. Write or call collect Administrator, Bartow Memorial Hospital, Bartow, Fla.

CENTRAL FLORIDA: Join incorporated general practitioner; excellent office and hospitals; profit sharing program; pension fund; generous salary with early partnership; rotating call; month's vacation. Contact: B. C. Ostling, M.D., P.O. Box 1468, Avon Park, Florida 33825. Phone (813)453-3121.

WANTED: GP as third man in partnership. General practice including some Ob. Boynton Beach area, lower East coast. Phone (305) 732-2701.

GENERAL PRACTITIONER WANTED: TWA Kennedy Space Center, Florida. Challenging opportunity in preventive medicine in variable, industrial setting. Industrial experience and Florida license preferred. Contact or call Ed McGee, TWA, Washington Plaza, Titusville, Florida 32780. (305)267-5031.

Specialists

WANTED: Thoracic and vascular surgeon for busy Miami Beach clinic. Telephone Dr. Lighterman 531-7603 or write: South Beach Diagnostic and Medical Center, 627 Washington Ave., Miami Beach, Fla. 33139.

INTERNIST WANTED: Board qualified or certified. To join two internists with subspecialty interests in cardiology in private practice. Salary plus percentage; eventual full partnership; Miami Beach. Write C-970, Post Office Box 2411, Jacksonville, Florida 32203.

MEDICAL INTERNIST WANTED: TWA, Kennedy Space Center, Florida. Challenging opportunity in preventive medicine program for aerospace personnel to include cardiac evaluation. Board certified or eligible. Florida license preferred. Contact or call Ed McGee, TWA, Washington Plaza, Titusville, Florida 32780 (305)267-5031.

ASSOCIATE OR LOCUM TENENS in well established urological practice in S. E. Florida area. Excellent hospitals. Proper applicant could lead to future purchase. Write C-967, P.O. Box 2411, Jacksonville, Florida 32203.

FORENSIC PATHOLOGIST WANTED: Immediate need—salary open. Apply Personnel Office, Room 246, Broward County Courthouse, 201 S. E. 6th St., Ft. Lauderdale, Fla. 33301.

Miscellaneous

EMERGENCY ROOM COVERAGE, full time physicians. Must be Florida licensed. 42 hour week. Contact Administrator, St. Mary's Hospital, 900 49th Street, West Palm Beach, Florida 33407.

EXCELLENT OPPORTUNITY for internist or general practitioner in established practice on island about 50 miles south of Sarasota, Florida. Present physician leaving June 1971 to take residency. Free use of fully equipped clinic, ambulance, office and utilities provided; also services of registered nurse. Income from practice will be supplemented to make situation extremely attractive. Schools, excellent fishing, golf available. If interested, call (813)964-2475 or (813) 964-2346 or Write Box 517, Boca Grande, Florida 33921, for details.

EXCELLENT OPPORTUNITIES in a lovely location on the Gulf of Mexico for the following practitioners: General practitioner, pediatrician, ENT, dermatologist and ophthalmologist. Write C-901, P.O. Box 2411, Jacksonville, Fla. 32203.

EMERGENCY ROOM: Attractive openings for hospital commencing its own emergency room service. $35-$40,000 minimum. Located in North Florida near Jacksonville area. Reply to C-961, P.O. Box 2411, Jacksonville, Fla. 32203.

One part-time EMERGENCY ROOM PHYSICIAN wanted. Compensation and hours of coverage open for discussion. Good opportunity in the future to establish own group. Contact Administrator, Lake Wales Hospital, Lake Wales, Fla. 33853.

WANTED IMMEDIATELY: Private emergency room physician. Corporate group needs fifth physician in teaching hospital, Orlando, Florida. Prefer GP. Florida license required. Contact Bruce S. Webster, M.D. (305) 647-5728 or Robert Gay, M.D. (305) 422-0159.

FOR MEDICAL ILLUSTRATIONS AND PRESENTATION AIDS prepared to your specifications, contact J. P. Dotts, 1733 West 28th Street, Orlando, Florida 32805. Phone 843-4983.

ADDITIONAL PHYSICIANS URGENTLY NEEDED: GP, internal medicine, obstetrics, pediatrics and general surgery. Modern office immediately available. Contact Pat M. Woodward, M.D., P.O. Box 819, Quincy, Florida 32351.

GENERAL PRACTITIONER-INTERNIST WANTED: A delightful, progressive southern community of 6,000, with a service population of 15,000, offers excellent recreational facilities, located 75 miles from Florida's "Miracle Strip" on the Gulf of Mexico. Currently three physicians, greatly overloaded. Modern Hill-Burton Hospital with new addition opened September 14, 1970. Ample beds. Assistance to make easy transition. Write or call Lowell S. Benton, Administrator, Elba General Hospital, Elba, Alabama 36323. Telephone (205)897-2257.

PHYSICIANS NEEDED: Tallahassee, Leon County, Northwest. General practitioners, internists and pediatricians in particular. Inquiries regarding practice in this community can be forwarded to J. Orson Smith Jr., M. D., Chairman, Physician Procurement Committee, 1433 Miccosukee Rd., Tallahassee, Fla. 32303. Phone (904) 877-1145.

30 PHYSICIAN multispecialty group located Florida Gulf Coast must add internist, general practitioner, orthopedist, anesthesiologist, urologist, and an ENT physician. Ground broken to add 110 beds to present 202 beds. Ground soon to be broken on large clinic addition. Long range plans to 650 beds and 75 physician clinic. No investment required. Progressive, rapidly growing community with abundance of recreation and cultural opportunities. Contact D. M. Schroder, Administrator, Mease Hospital and Clinic, Dunedin, Florida 33528.

INDUSTRIAL: We are in need of a physician. Salary open; corporate benefits and partnership anticipated. Practice is strictly industrial—examinations and Workmen's Compensation. Write The Mitchell Clinic, P.A., Doctors Building, 241 W. Ashley St., Jacksonville, Fla. 32202.

EMERGENCY ROOM PHYSICIANS WANTED: middle east coast Florida. Florida license required. Minimum $31,000 for 48-hour week. Part time or full time available. Physicians Emergency Service, 1350 S. Hickory St., Melbourne, Fla. 32901.

PSYCHIATRIST OR EXP. GP: Interested in semi-retirement on Florida east coast with private Christian counseling center—supervision, teaching, patient contact, etc. Send resume, beliefs, salary requirement, interests, etc. Florida license required. Write C-955, P.O. Box 2411, Jacksonville, Fla. 32203.

GP OR INTERNIST preferably under 35 for addition to established 4-man family practice group in Cape Kennedy area. Salary first year, partnership thereafter. Complete facilities, including lab, x-ray (consulting radiologist for fluoroscopy) and pharmacy. Contact A. F. Stratton Jr., M.D., Brevard Medical Group, P.O. Box 746, Cocoa 32923, phone (305)636-2621.

EMERGENCY ROOM PHYSICIAN for JCAH fully-accredited hospital. ECFMG required. Subtropical area adjacent to Miami. Send qualifications to Mr. Ralph Settle, Administrator, Keys Community Hospital, 50 High Point Road, Tavernier, Florida 33070.

WEST FLORIDA RESORT COMMUNITY NEEDS PHYSICIANS: Family practice and all specialties. Excellent hospital facilities and the world's most beautiful beaches. A wonderful place to raise your family. John F. Mason, M.D., Secretary, Bay County Medical Society, 518 North Cove Blvd., Panama City, Fla. 32401.

ER PHYSICIANS to join corporate group running Florida Gulfcoast Hospital emergency room. Need two full-time, will consider short term six months or more. Florida license required. 40 hour week, all corporate benefits. Reply to George Moench, M.D., P.A. 5026 22nd Avenue, S., Gulfport, Florida (813)341-3851.

situations wanted

FAMILY PHYSICIAN: Desires group practice with other M.D.'s 16 years experience in solo rural family practice. U.S. medical school graduate—1951, internship and surgical residency at a university medical center; Diplomate National Board of Medical Examiners, Diplomate of American Board of Family Practice—1970, member American Academy of General Practice, member American Society of Teachers of Family Practice; Florida Medical License. Salary requirement—$40,000. Write C-968, P.O. Box 2411, Jacksonville, Florida 32203.

SITUATION WANTED: Soon to retire radiologist would like full or part time position. Write J. S. Rubin, M.D., 206 Golf Terrace Dr., Crookston, Minn. 56716.

LOCATION OR ASSOCIATION DESIRED: Florida intern desires association, group practice, or location for solo practice in Florida. Write Larry E. Stevens, M.D., 209 S. Hubert, Tampa, Florida 33609.

GENERAL SURGEON: Chief Resident, University Hospital with vascular training desires to make contact during February, 1971 Florida visit with surgeon desiring associate. Interested in tropical coast. Available July 1973 following Army. Write C-969, P.O. Box 2411, Jacksonville, Florida 32203.

GENERAL SURGEON: Florida license, age 34, board eligible, military obligation completed. Desires Florida location in association or group practice. Write C-960, P.O. Box 2411, Jacksonville, Florida 32203.

real estate

EXCELLENT OFFICE SPACE AVAILABLE: In the Five Points Medical Center, Oak and Lomax Sts., Jacksonville, Fla. 32204. All utilities and services furnished. For information please call Dr. Max Mendelson at 355-5150.

FULLY EQUIPPED OFFICE FOR RENT: Active practice for sale by retiring physician. Terms open. Robert Spencer Howell, M.D., 327 Alcazar Ave., Coral Gables, Fla. 33134. Home phone: 444-0577.

The Florida Medical Association offers placement assistance through the Physician Placement Service, P. O. Box 2411, Jacksonville 32203. This service is for the use of physicians seeking locations, as well as physicians seeking associates, and is without charge.

FMA MEETINGS IN JANUARY

January 9	Council on Medical Economics, Hawaiian Village, Tampa, 10:00 a.m.
January 10	Committee on Physician Assistants and Medical Assistants, Robert Meyer Motor Inn, Orlando, 10:00 a.m.
January 14	Florida Committee on Smoking and Health, FMA Headquarters, Jacksonville, 10:00 a.m.
January 15	FMA Executive Committee, FMA Headquarters, Jacksonville, 1:00 p.m.
January 16	FMA Board of Governors, FMA Headquarters, Jacksonville, 10:00 a.m.
January 29	Ad Hoc Committee on Drug Abuse, "The Starting Place," Hollywood, and Broward County Medical Association Headquarters, Ft. Lauderdale, 10:00 a.m.
January 29	FMA Investment Plan Committee, Robert Meyer Motor Inn, Orlando, 6:00 p.m.
January 30	13th Annual Conference of County Medical Society Presidents and Secretaries, Robert Meyer Motor Inn, Orlando, 9:00 a.m.
January 31	Seminar on Medical Legislation, Robert Meyer Motor Inn, Orlando, 9:00 a.m.

Reminder.

Send in your favorite photographs or color slides which might be appropriate for the cover of the JOURNAL. *They will be handled with care and returned to you.*

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Next Annual Meeting: May 5-9, 1971, Miami Beach

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anxiety: the tyrant

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Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions [illegible] stimulation and acute [illegible] started in psychiatric [illegible] active aggressive [illegible] al precautions in [illegible] states with evidence [illegible] sion; suicidal tendency and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.
Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage range. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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THE JOURNAL OF THE Florida Medical Association

FEBRUARY 1971 • VOLUME 58 • NUMBER 2

THE FLORIDA MEDICAL ASSOCIATION, INC. 1834

BALCONY

Menrium® treats the menopausal symptoms that bother him most.



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His wife has a lot of different menopausal symptoms, but only a few really irritate *him*. Her hot flashes, her vertigo, her palpitations—that's *her* problem. What really bothers him is her nervousness, her irritability and her excessive anxiety, often expressed by endless "book-shuffling, chain-smoking, reading-lamp" insomnia!

Menrium takes care of hot flashes, vertigo, palpitations in most menopausal women. Menrium provides the well-known antianxiety action of chlordiazepoxide (Librium®) and water-soluble esterified estrogens. It therefore relieves more symptoms than either component separately. It takes care of the vasomotor symptoms as well as the emotional symptoms. This means the symptoms that bother his wife most. And the symptoms that irritate him most.

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Indications: Management of manifestations generally associated with the menopausal syndrome—anxiety and tension, vasomotor complaints and hormonal deficiency states.

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Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Exclude other possible causes of menopausal syndrome manifestations, such as pregnancy. Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions) similar to those seen with barbiturates have been reported following discontinuance of chlordiazepoxide HCl. Potential benefits of use in pregnancy, lactation or women of childbearing age should be weighed against possible hazards to mother and child. Clinical data inadequate on safety in pregnancy.

Precautions: In elderly and debilitated patients, limit dosage to smallest effective amount of chlordiazepoxide (initially 10 mg or less per day) to preclude ataxia or oversedation; increase gradually as needed and tolerated. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects—particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in patients with impaired renal or hepatic function. Paradoxical reactions to chlordiazepoxide (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in the treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation very rarely reported in patients receiving Librium® (chlordiazepoxide) and oral anticoagulants.

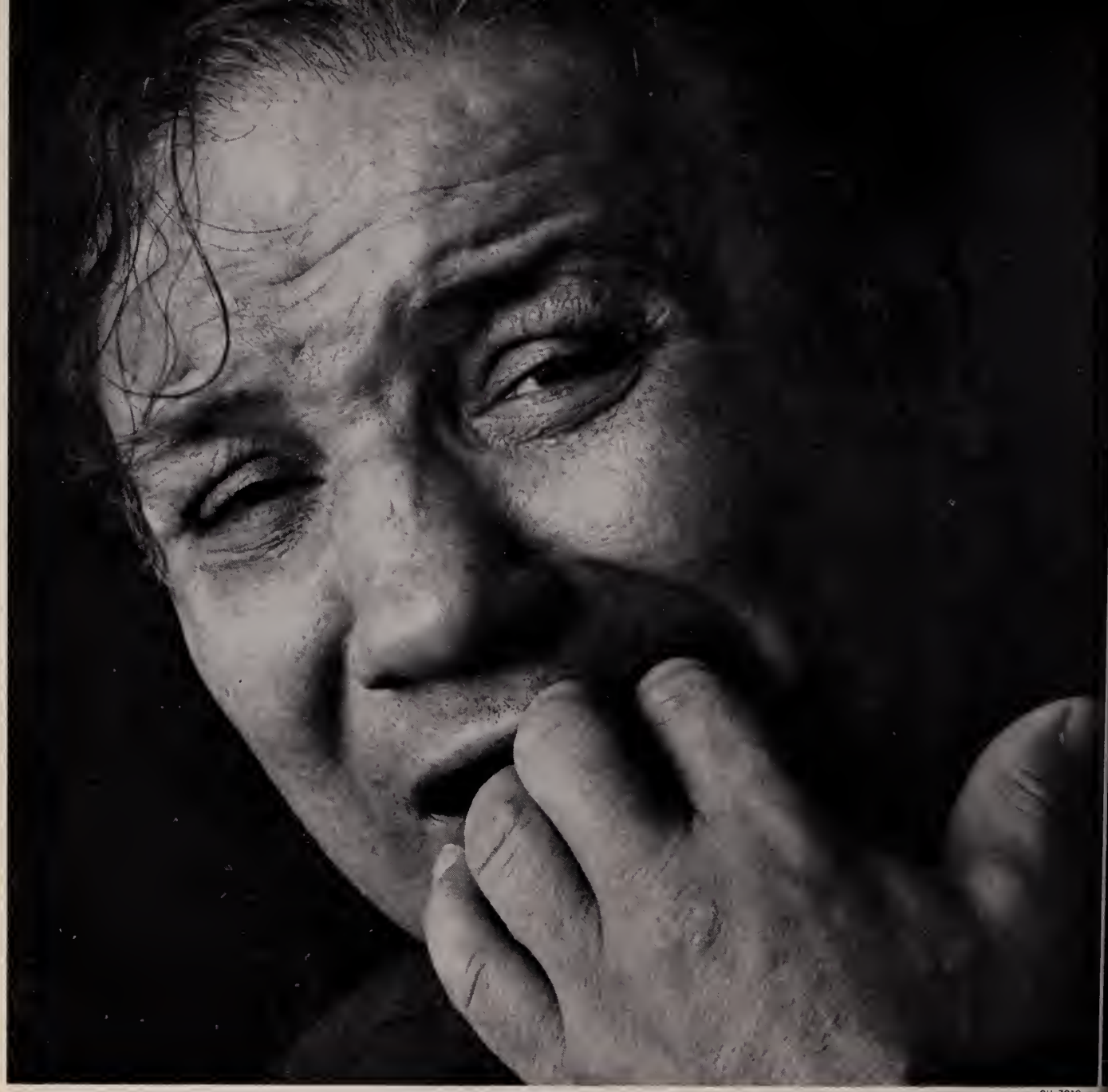
Adverse Reactions: Untoward effects seen with either compound alone may occur with Menrium. With chlordiazepoxide, drowsiness, ataxia and confusion reported in some patients, particularly in the elderly and debilitated; while usually avoided by proper dosage adjustment, these are occasionally observed at lower dosage ranges. Also reported have been a few instances of syncope; isolated occurrences of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido, and occasional reports of blood dyscrasias, including agranulocytosis, jaundice and hepatic dysfunction. Periodic blood counts and liver function tests advisable during protracted treatment. Changes in EEG patterns (low-voltage fast activity) observed during and after chlordiazepoxide treatment.

With estrogens, headache, nausea and vomiting, anorexia, gastrointestinal discomfort, dysuria and urinary frequency, jitteriness, breast engorgement, formation of breast cysts, skin rashes and pruritus occasionally seen. Administration may also be associated with uterine bleeding and/or followed by withdrawal bleeding.

Usual Dosage: One tablet t.i.d. for 21 days, followed by one-week rest periods.

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FEBRUARY COVER—This most unusual photograph of one of Mother Nature's quirks taken by Dr. Carlos O. Rojas of Miami was selected to cover this issue authored by members of the faculty of the University of Miami School of Medicine.

President's Page



They Threw Us A Bone

We have heard from the Florida Industrial Commission; some of you will be pleased and some will not. The major change is that the conversion factor for all surgical and most medical procedures will go from 5.5 to 6.0. Pathology and radiology will not be changed. Neither will be first office visit ($12.00); follow-up office visit ($8.00); first and follow-up hospital visits ($15.00 and $5.00). The unit value for myelograms is raised from 10.0 to 15.0.

The glaring deficiency is the $5.00 follow-up hospital visit; I believe we can mostly live with the rest, although many will consider the fees far from generous.

Now your Board of Governors must decide what to do. Shall we accept what we've got, say "Thanky" and back out of the room, hat in hand? Shall we immediately file for a re-hearing on the grossly unfair items; particularly for follow-up hospital visits? Or shall we take the whole matter or part of it to court?

Joe Matthews and his committee have accomplished a great deal. We must at least listen to their advice. Legal counsel can only tell us if we stand a chance in court, and this must be considered. The decision of your Board will not be a hasty one, I assure you; and I hope to amend this letter with their decision.

Finally, those who feel left out—don't blame FMA. The omissions were arbitrary and by the Commission; not by your representatives.

James T. Holt, Jr., M.D.

Addendum: At the January Board of Governors meeting, it was decided to maintain an aggressive and positive approach to this problem. Appeal to the courts now would be unwise; therefore, a request for a new hearing will be filed as soon as possible with the idea of correcting the worst inequities.

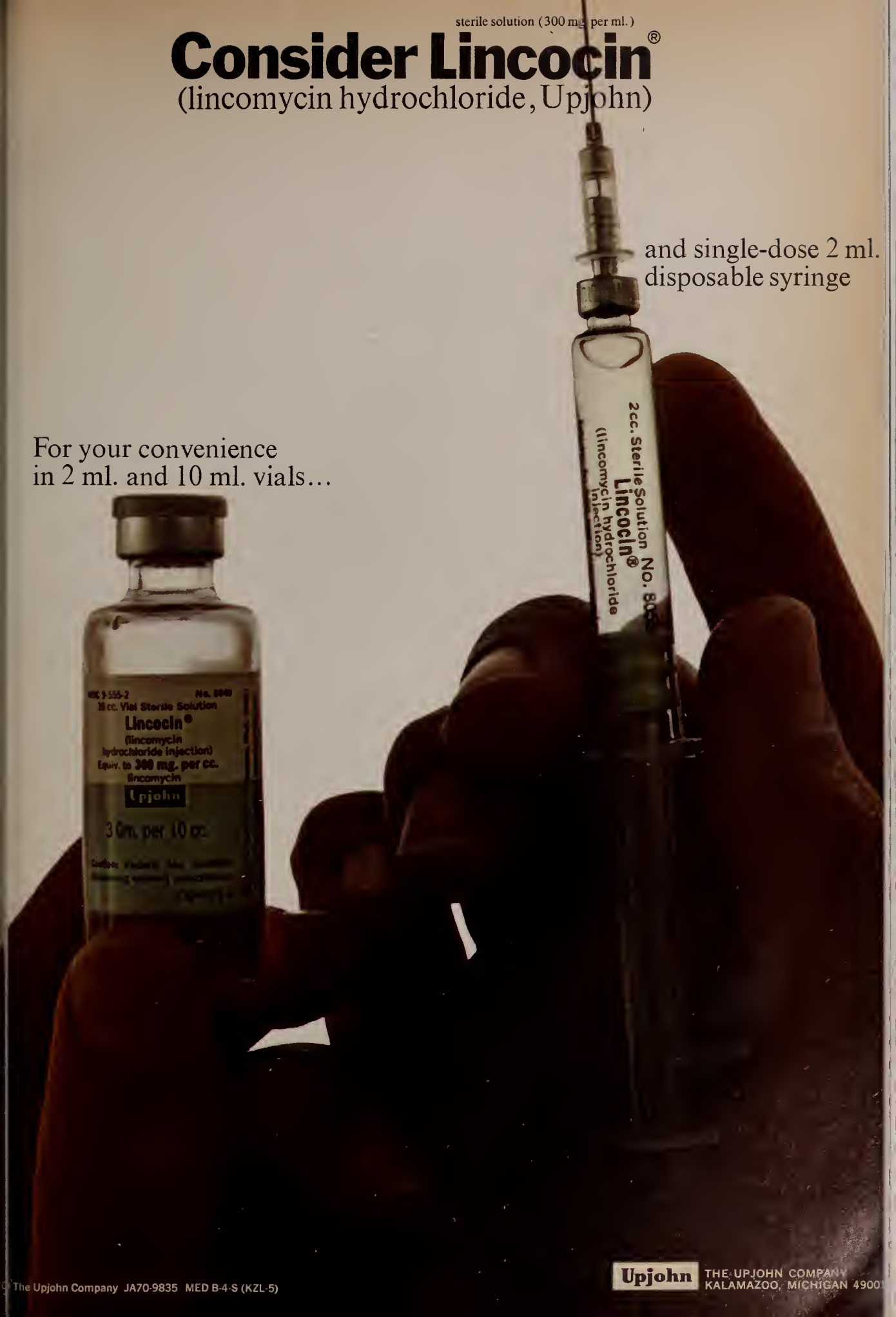
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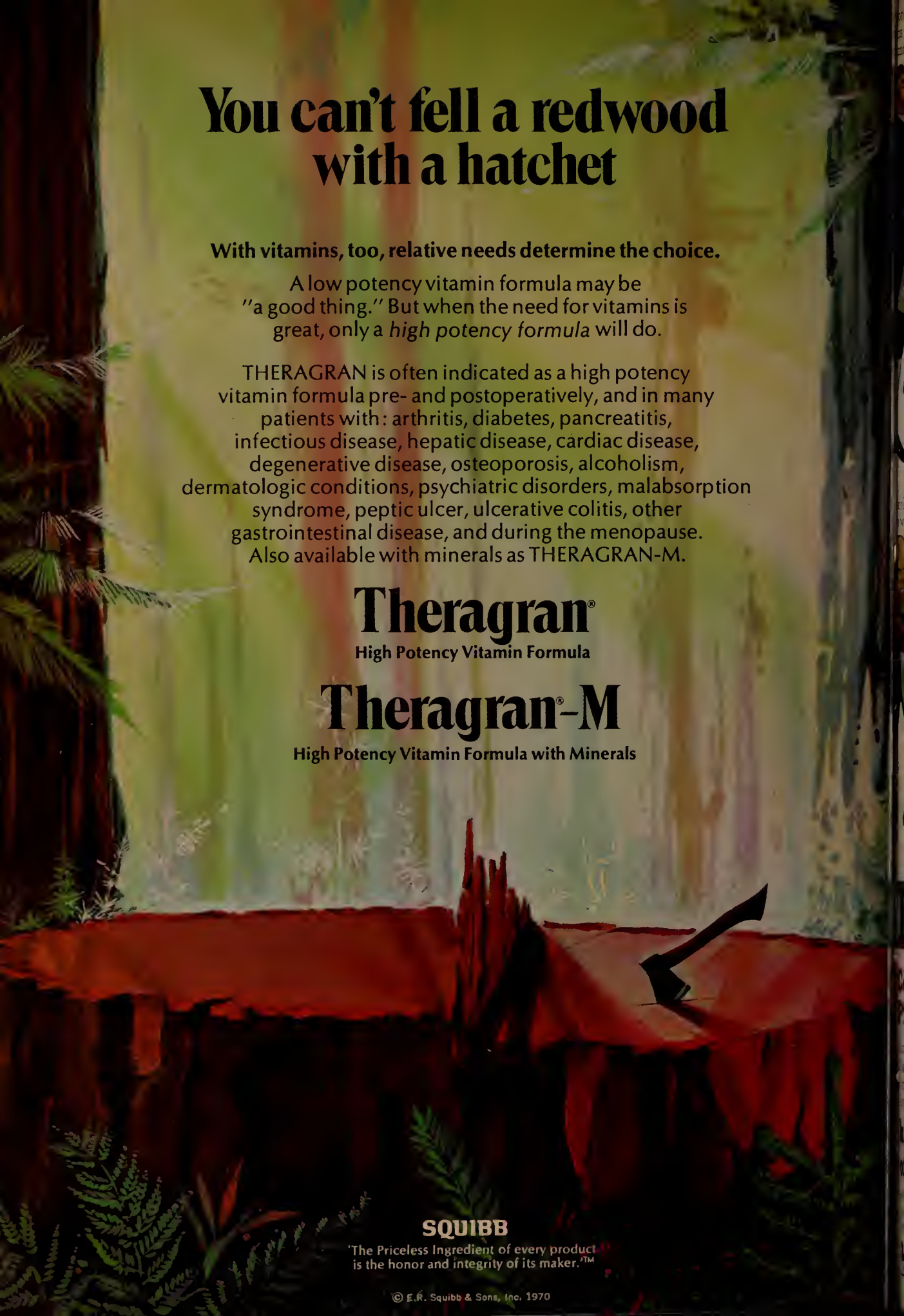
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1. Duvoisin, R. C.; Yahr, M.D., and Cotè, L. D.: *Trans. Amer. Neurol. Assoc., 94*:81, 1969.
2. Cotzias, G. C.: *J.A.M.A., 210*:1255, 1969.

Complete Prescribing Information:
Each Larobec tablet contains:
Thiamine mononitrate (vitamin B_1) 15 mg
Riboflavin (vitamin B_2) 15 mg
Niacinamide 100 mg
Calcium pantothenate 20 mg
Cyanocobalamin (vitamin B_{12}) ... 5 mcg
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Ascorbic acid (vitamin C) 500 mg

Description: For prophylactic or therapeutic nutritional supplementation concomitant with levodopa therapy in patients with Parkinson's disease and syndrome, Larobec provides high potency dosages of the major B-complex vitamins, without pyridoxine (vitamin B_6) which has been reported[1,2] to reduce the clinical benefits of levodopa therapy. B-complex vitamins are essential in the anabolism of carbohydrate and protein and in hematopoiesis. Larobec also contains therapeutic quantities of ascorbic acid, a substance involved in intracellular reactions such as tissue repair and collagen formation.

Indications: Larobec is indicated for supportive nutritional supplementation when a water-soluble vitamin formula (without pyridoxine) is required prophylactically or therapeutically in patients under treatment with levodopa.

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Dosage and Administration: One or two tablets daily, as indicated by clinical need.

How Supplied: Orange-colored, capsule-shaped tablets, imprinted Roche 73; bottles of 100.

References:
1. Duvoisin, R. C., *et al.*: *Trans. Amer. Neurol. Assoc., 94*: 81, 1969.
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Announcement

The Second Annual Stroke Conference on Insufficiency Syndromes will be held in Jacksonville, Florida, on March 6, 1971. It is under the auspices of the Florida Regional Medical Program and it is approved for six hours credit under the AAGP. The program is designed for the physician in practice who treats and initially sees patients with the "stroke syndrome."

The featured speakers at this meeting will include Dr. Michael E. DeBakey, President, Baylor College of Medicine, Houston, Texas; Dr. Howard Rusk, Director of Institute of Rehabilitative Medicine, New York University Medical Center; Dr. H. B. Curry, Professor and Chairman, Department of Family Practice, Associate Professor of Department of Neurology, Medical University of South Carolina, Charleston, South Carolina; Dr. Peritz Scheinberg, Professor and Chairman, Department of Neurology, University of Miami School of Medicine; Dr. Thomas Bartley, Professor of Thoracic and Cardiovascular Surgery, University of Florida College of Medicine, and Dr. Fred Vroom, Assistant Professor of Medicine, Division of Neurology, University of Florida College of Medicine.

This one day intensive program will be held at Ponte Vedra Inn, on Saturday, March 6, 1971. Registration will be limited to 300 and the cost will be $25.

A house is built of logs and stone,
Of tiles and posts and piers;
A home is built of loving deeds
That stand a thousand years.

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Precautions: Should be used with caution in patients who have glaucoma. Tolerance to this drug, and cross-tolerance to other nitrites and nitrates may occur.
Adverse Reactions: Side effects reported to date have been predominantly related to rash (which requires discontinuation of medication) and headache and gastrointestinal distress, which are usually mild and transient with continuation of medication. In some cases severe persistent headaches may occur. In addition, the following adverse reactions to nitrates such as pentaerythritol tetranitrate have been reported in the literature: (a) Cutaneous vasodilatation with flushing. (b) Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop. (c) An occasional individual exhibits marked sensitivity to the hypotensive effects of nitrite and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration and collapse) can occur, even with the usual therapeutic doses. Alcohol may enhance this effect.
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1. Gordon, E. E. and Haas, A., Indust. Med. & Surg. 28:217, May. 1959.

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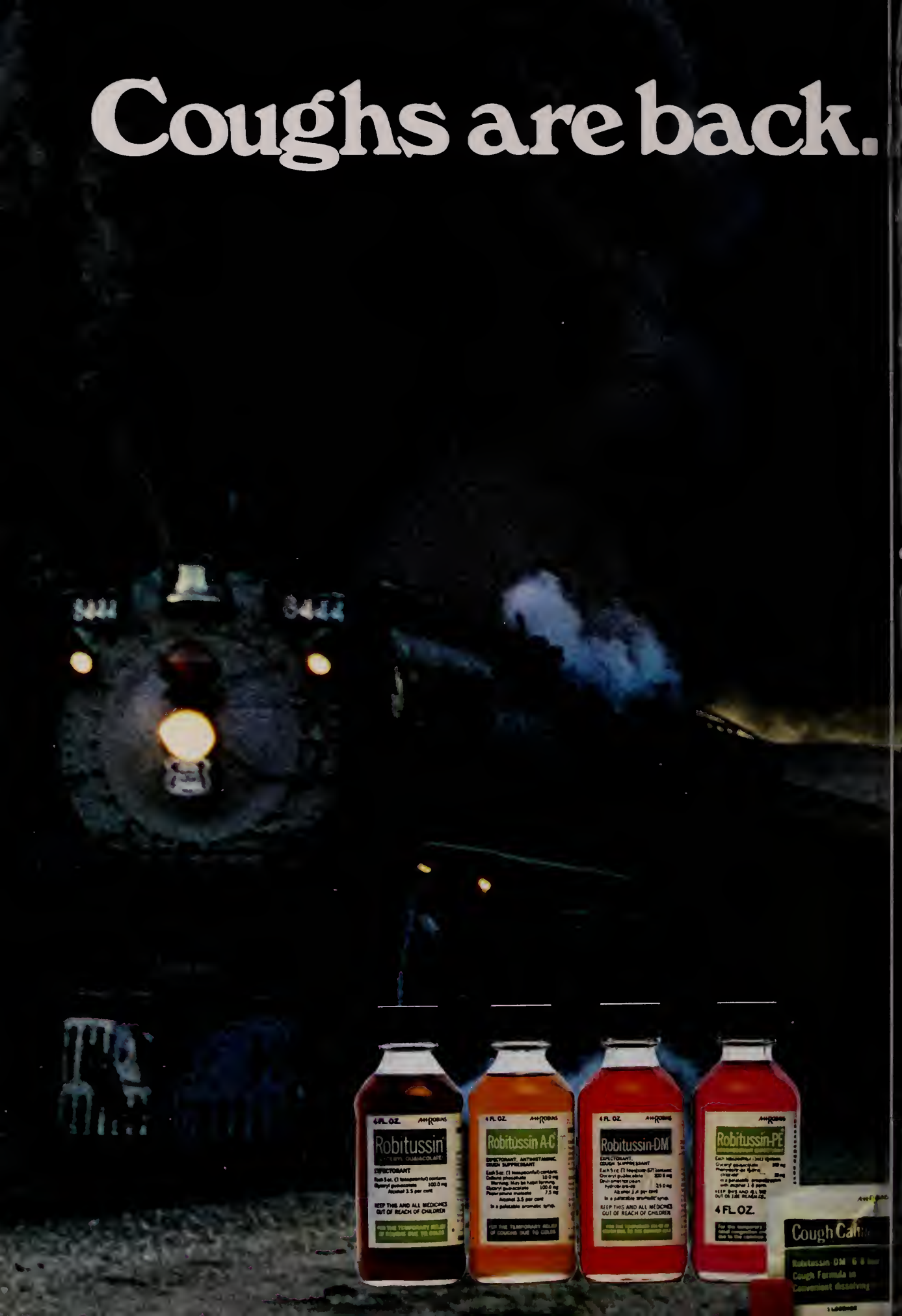
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ROBITUSSIN A-C®	●	●			
ROBITUSSIN-DM®	●		●		●
ROBITUSSIN-PE®				●	●
COUGH CALMERS™	●		●		●

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2
3
4
5
6



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: Not recommended during the acute recovery phase ing myocardial infarction. Patients with cardiovascular lers should be watched closely; arrhythmias, sinus cardia, and prolongation of the conduction time have reported, particularly with high doses; myocardial tion and stroke have been reported with drugs of this Close supervision is required for hyperthyroid ts or those receiving thyroid medication. Concurrent oshock therapy may increase the hazards of therapy; reatment should be limited to patients for whom it is tial. Discontinue the drug several days before elective y if possible.

ndications: Known hypersensitivity. Should not be given itantly with or within at least 14 days following the discontinuance noamine oxidase inhibitor. Then initiate dosage of amitriptyline HCl sly with gradual increase in dosage until optimum response is d. Not recommended during the acute recovery phase following dial infarction or for patients under 12 years of age.

gs: May block the antihypertensive action of guanethidine or similarly compounds. Should be used with caution in patients with a history of s or urinary retention, or with narrow-angle glaucoma or increased ular pressure. Patients with cardiovascular disorders should be d closely; arrhythmias, sinus tachycardia, and prolongation of the tion time have been reported, particularly with high doses; dial infarction and stroke have been reported with drugs of this Close supervision is required for hyperthyroid patients or those g thyroid medication. May impair mental and/or physical abilities d for performance of hazardous tasks, such as operating machinery ng a motor vehicle. Safe use during pregnancy and lactation has not stablished; in pregnant patients, nursing mothers, or women who may pregnant, weigh possible benefits against possible hazards to and child.

ctions: When used to treat the depressive component of schizophrenia, tic symptoms may be aggravated; in manic-depressive psychosis, sed patients may experience a shift toward the manic phase, and d delusions, with or without associated hostility, may be rated; in any of these circumstances, it may be advisable to reduce e of amitriptyline HCl, or to use a major tranquilizing drug, such as hazine, concurrently.

When given with anticholinergic agents or sympathomimetic drugs, close supervision and careful adjustment of dosages are required. May enhance the response to alcohol and the effects of barbiturates and other CNS depressants. The possibility of suicide in depressed patients remains during treatment and until significant remission occurs; this type of patient should not have easy access to large quantities of the drug. Concurrent electroshock therapy may increase the hazards of therapy; such treatment should be limited to patients for whom it is essential. Discontinue the drug several days before elective surgery if possible.

Adverse Reactions: *Note:* Included in this listing are a few adverse reactions not reported with this specific drug. However, pharmacological similarities among the tricyclic antidepressant drugs require that each reaction be considered when amitriptyline is administered.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitation, myocardial infarction, arrhythmias, heart block, stroke. *CNS and Neuromuscular:* Confusional states; disturbed concentration; disorientation; delusions; hallucinations; excitement; anxiety; restlessness; insomnia; nightmares; numbness, tingling, and paresthesias of the extremities; peripheral neuropathy; incoordination; ataxia; tremors; seizures; alteration in EEG patterns; extrapyramidal symptoms. *Anticholinergic:* Dry mouth, blurred vision, disturbance of accommodation, constipation, paralytic ileus, urinary retention, dilatation of urinary tract. *Allergic:* Skin rash, urticaria, photosensitization, edema of face and tongue. *Hematologic:* Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia. *Gastrointestinal:* Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, parotid swelling. *Endocrine:* Testicular swelling and gynecomastia in the male, breast enlargement and galactorrhea in the female, increased or decreased libido. *Other:* Dizziness, weakness, fatigue, headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, drowsiness, jaundice. *Withdrawal Symptoms:* Abrupt cessation of treatment after prolonged administration may produce nausea, headache, and malaise; these are not indicative of addiction.

How Supplied: Tablets containing 10 mg and 25 mg amitriptyline HCl, in single-unit packages of 100 and bottles of 100, 1000, and 5000; tablets containing 50 mg amitriptyline HCl, in single-unit packages of 100 and bottles of 100 and 1000; for intramuscular use, in 10-cc vials containing per cc: 10 mg amitriptyline HCl, 44 mg dextrose, and 1.5 mg methylparaben and 0.2 mg propylparaben as preservatives.

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hand · i · capped
(han′ dē kapt′), *adj.*
1. able 2. dependable
3. energetic 4. eager workers

HIRE

The President's Committee on Employment of the Handicapped
Washington, D.C. 20210

New Nilcol-
A Comprehensive
Formula:

DESCRIPTION	Contents in mg	
	Toblet	Elixir—each 15 ml
phenylproponolomine HCl	50	25
chlorpheniromine moleate	4	2
glyceryl guoiacolote	200	100
dextromethorphan HBr	30	15
olcohol		10%

The scored, ellipticol toblet is light violet. The elixir is deep violet in color and grope-flavored.

ACTIONS Each component of Nilcol hos been selected to provide symptomatic relief of congestion ond cough in upper respirotory disorders.

Phenylpropanolomine hydrochloride is o vosoconstrictor which reduces congestion of the nosopharyngeol mucosa. Chlorpheniromine moleote, a widely used ontihistomine, helps to control ollergic symptoms. The expectoront is glyceryl guoiacolote which helps to increose the secretion ond decreose the viscosity of fluids of the respirotory tract. Dextromethorphan is o well-known, centrolly octing ontitussive. Nilcol moy minimize the need for topicol decongestonts.

INDICATIONS Nilcol is indicoted for nosal ond bronchiol congestion; coughs and other symptoms of respirotory infections including influenza ond the common cold; other respirotory conditions such os sinusitis, ollergic rhinitis or hoy fever.

CONTRAINDICATION Hypersensitivity to any ingredient.

PRECAUTIONS Becouse of the possibility of drowsiness, potients should be cautioned ogoinst driving and operoting mochinery. Administer with coution to potients with hyperthyroidism, hypertensive cordiovasculor diseose, diabetes mellitus ond liver diseose. Use in pregnoncy is not recommended.

ADVERSE REACTIONS Anxiety, restlessness, tension, insomnio, tremor, weokness, heodoche, vertigo, sweating, nouseo, ond vomiting moy possibly occur.

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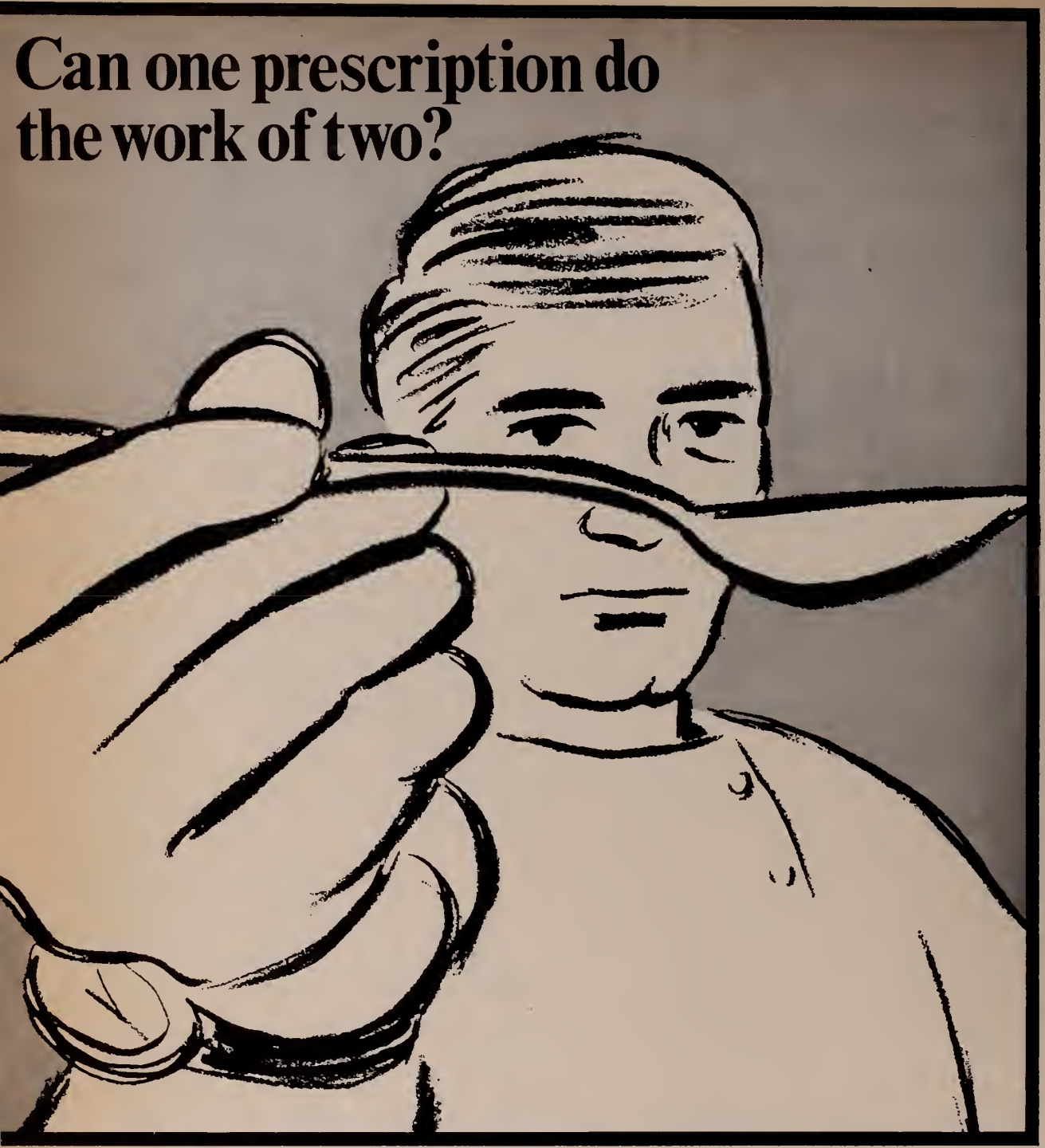
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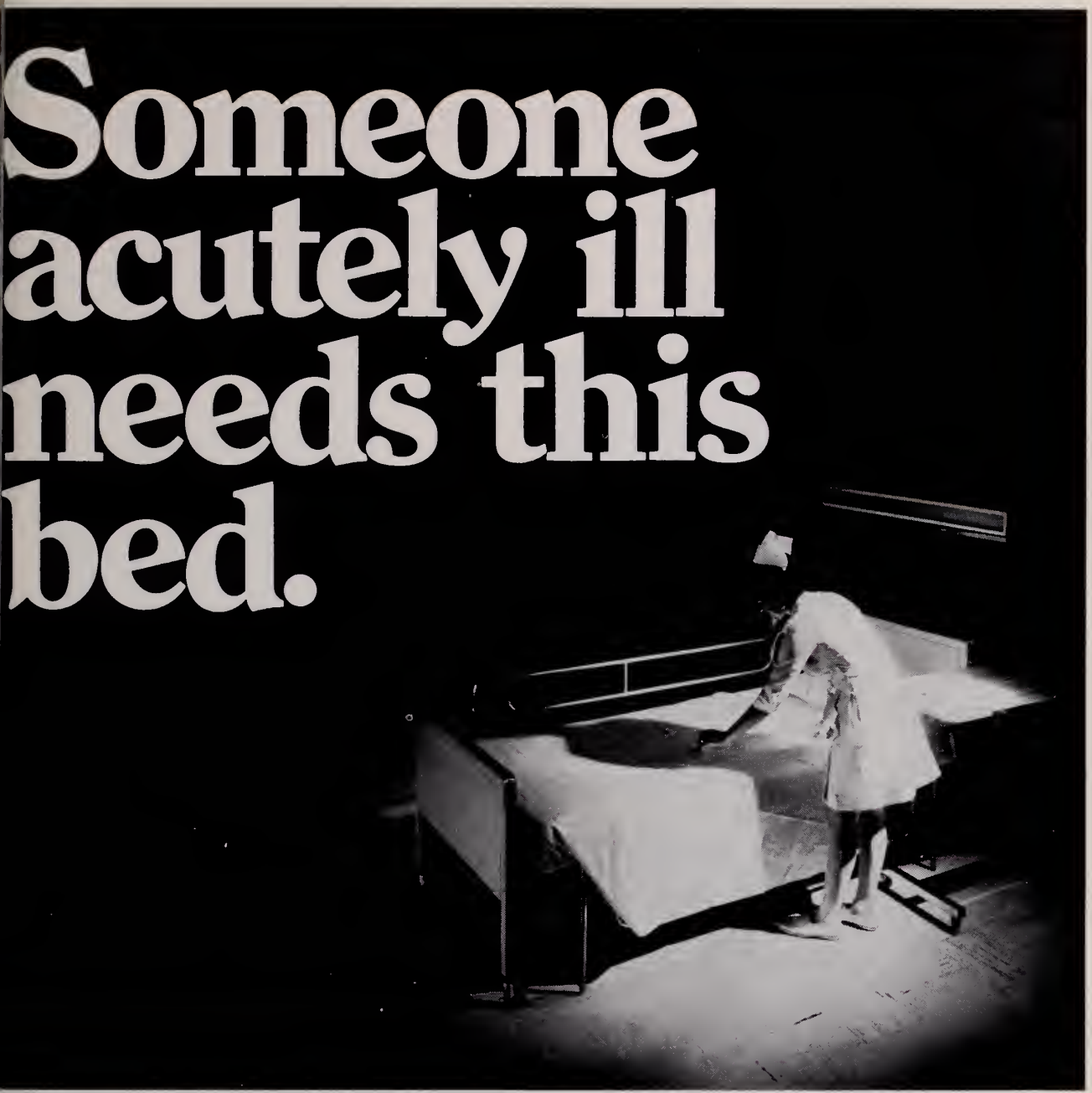
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Indications: Essential hypertension. Use cautiously in patients with renal insufficiency, particularly if they are digitalized.
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Warnings: Small-bowel lesions (obstruction, hemorrhage, perforation and death) have occurred during therapy with enteric-coated formulations containing potassium, with or without thiazides. Such potassium formulations should be used with Salutensin only when indicated and should be discontinued immediately if abdominal pain, distension, nausea, vomiting or gastrointestinal bleeding occurs. Use cautiously, and only when deemed essential, in fertile, pregnant or lactating patients. *Use in Pregnancy:* Thiazides cross the placenta and can cause fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly electrolyte disturbances. Fatal reactions may occur with reserpine during electroshock therapy; discontinue Salutensin 2 weeks before such therapy. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.
Precautions: Azotemia, hypochloremia, hyponatremia, hypochloremic alkalosis and hypokaliemia (especially with hepatic cirrhosis and corticosteroid therapy) may occur, particularly with pre-existing vomiting and diarrhea. Potassium loss or protoveratrine A may cause digitalis intoxication. *Potassium loss responds to potassium-rich foods, potassium chloride or, if necessary, discontinuation of therapy. Stop therapy if protoveratrine A induces digitalis intoxication.* Serum ammonia elevation may precipitate coma in precomatose hepatic cirrhotics. Discontinue therapy 2 weeks before surgery or if myocardial irritability, progressive azotemia or severe depression occur. Exercise caution in patients with chronic uremia, angina pectoris, coronary thrombosis or extensive cerebral vascular disease *or bronchial asthma* and in those with a history of peptic ulceration or bronchial asthma; in post-sympathectomy patients; in patients on quinidine; and in patients with gallstones, in whom biliary colic may occur. Patients who have diabetes mellitus or who are suspected of being prediabetic should be kept under close observation if treated with this agent.
Adverse Reactions: Hydroflumethiazide: Skin rashes (including exfoliative dermatitis), skin photosensitivity, urticaria, necrotizing angiitis, xanthopsia, granulocytopenia, aplastic anemia, orthostatic hypotension (potentiated with alcohol, barbiturates or narcotics), allergic glomerulonephritis, acute pancreatitis, liver involvement (intrahepatic cholestatic jaundice), purpura plus or minus thrombocytopenia, hyperuricemia, hyperglycemia, glycosuria, malaise, weakness, dizziness, fatigue, paresthesias, muscle cramps, skin rash, epigastric distress, vomiting, diarrhea and constipation. *Reserpine:* Depression, peptic ulceration, diarrhea, Parkinsonism, nasal stuffiness, dryness of the mouth, weight gain, impotence or decreased libido, conjunctival injection, dull sensorium, deafness, glaucoma, uveitis, optic atrophy, and, with overdosage, agitation, insomnia and nightmares. *Protoveratrine A:* Nausea, vomiting, cardiac arrhythmia, prostration, blurring vision, mental confusion, excessive hypotension and bradycardia. (Treat bradycardia with atropine and hypotension with vasopressors.)
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THE JOURNAL OF THE Florida Medical Association

FEBRUARY, 1971 • VOLUME 58 • NUMBER 2

Editor's Note: These remarks by Dr. Martin H. Kalser introduce a special issue of the Journal prepared by a group of authors who are faculty members of the University of Miami School of Medicine. We present it with a great deal of pride. For making it possible, we are grateful to Dr. Kalser, Professor of Medicine and Physiology, Dr. W. Dean Warren, Chairman of the Department of Surgery and Drs. Zeppa, Rogers, Schiff, Polk, Brom and Salam.

Dr. Richard C. Dever of Miami suggested this discussion of the diagnosis and medical and surgical therapy of gastrointestinal disorders and laid the ground work resulting in the cooperation of Drs. Kalser and Warren, who, in turn, aroused the interest of their colleagues. We are indebted to Dr. Dever and his colleagues for this excellent presentation.

Newer Diagnostic and Therapeutic Approaches to Common Gastrointestinal Disease

MARTIN H. KALSER, M.D.

A major objective of laboratory research is to augment the diagnosis of disease and to enhance the therapy of the individual patient. It is in the environment of a medical center where this transition can be accomplished, and it is the responsibility of the center to disseminate this clinical knowledge. In this issue of the Journal, newer diagnostic and therapeutic approaches to common gastrointestinal disease are presented. These include the surgical treatment of bleeding esophageal varices, surgical approach to hiatal hernia, diagnosis of pancreatic disease, therapy after massive intestinal resection, and new concepts of chronic liver disease.

The problem of bleeding esophageal varices is life-threatening. Doctors Salam and Warren and their associates have been working toward decreasing the mortality and morbidity of surgical procedures of this condition. They have been able to establish definitive criteria for rational surgical intervention, to establish the optimum time for surgical intervention and, based on blood flow studies, the best type of surgical procedure. They have also developed a new decompression procedure for portal hypertension that eliminates the protein intoxication which is a disabling complication of other decompression procedures.

Hiatal hernia remains a major therapeutic problem. The perplexity in this entity is the high incidence, particularly in older age groups, with a very low morbidity in most patients. Medical therapy is not definitive and surgical therapy of repair of a herniated stomach has not been too successful. Doctor Zeppa and his associates in the Department of Surgery have established definitive, strict criteria for surgical intervention based on pathophysiologic considerations of acid-pepsin regurgitation and have presented their clinical experience with a procedure which corrects the basic mechanistic disturbance.

The pancreas, because of its anatomical position, has been more recalcitrant to early diagnosis than other gastrointestinal organs. The usual diagnostic laboratory and roentgen procedures must

be supplemented by specialized techniques. The approach which holds promise for the future is the testing of pancreatic function, including pancreatic scanning with radioisotope-labeled amino acid incorporation into protein by the pancreas, and pancreatic exocrine secretion of normal and abnormal products. These are reviewed by Doctors Brom and Kalser of the Division of Gastroenterology.

Better understanding of nonalcoholic, nonnutritional chronic liver disease has evolved with knowledge of the role of Australia antigen, and therapy with corticosteroids and immunosuppressive agents. The definition and classification of chronic hepatitis is presented by Doctor Rogers. Important considerations are indications for an interpretation of liver biopsy in order to assess prognosis in institution of proper therapy.

Recent advances in surgical resection of massive lengths of intestines have been matched by application of absorptive knowledge gleaned from the "in vitro" sac of the laboratory to the bedside of the patient. As examples, animal studies have shown that certain fats, medium chain triglycerides, are absorbed in a simplified manner as compared to the usual dietary fats, and this knowledge has been applied to the therapy of patients with absorptive defects. Similarly, in vitro studies have established the sites of absorption of minerals and other foodstuffs, particularly vitamin B_{12} and bile salts. This has allowed understanding of the total assimilation defects in patients with massive resections of the distal small intestine. Based on this research knowledge, a rational approach to the therapy of a patient with this type of defect is presented by Doctor E. Schiff of the Division of Gastroenterology.

Wisdom is the principal thing, therefore get wisdom: and with all thy getting, get understanding.

Take fast hold of instruction; let her not go: keep her; for she is thy life. Put away from thee a forward mouth, and perverse lips put far from thee. Go to the ant, thou sluggard; consider her ways, and be wise.

—*Solomon (c.972-c.932* B.C.*)*

The Study of Portal Hypertension as It Relates to Choice of Operation

Atef A. Salam, M.D. and W. Dean Warren, M.D.

Although laboratory investigation is of great importance in clearly establishing the severity and nature of the portal hypertensive problem, the history and physical examination remain important fundamentals of preoperative study. In the history there are certain features of value in the decision-making process both as to indications for surgery and in timing the operation. A history of previous hepatitis is of great importance and an attempt should be made to ascertain if the patient falls into the chronic active hepatitis category. These patients as a group are less satisfactory candidates for surgery because their ultimate prognosis is so clearly limited by the basic nature of their disease. On the other hand, a patient with alcoholic or nutritional cirrhosis who has completely abstained from alcohol, maintained excellent appetite and strength while working full-time, has a much more favorable outlook. Frequently a patient will be found a poor candidate for surgery because of recent loss of appetite, muscle wasting and inability to perform full-time work in spite of apparently satisfactory liver function tests. This usually is associated with either a continuing active hepatitis or with active liver disease secondary to excessive alcohol ingestion. In either situation certain physical characteristics should be looked for routinely. Of great importance is the presence or absence of tense ascites. This, in general, is a sign of active liver disease and one ordinarily attempts to delay operation until an intensive medical regimen has been utilized. When possible it is extremely helpful to hospitalize the patient for two to three months, usually allowing for control of the ascites, nutritional improvement and subsidence of active inflammatory changes. Unfortunately this is not always applicable except in those patients who have entered the Veterans Administration Hospital.

From the Department of Surgery, University of Miami School of Medicine and Jackson Memorial Hospital, Miami.

This work was supported in part by U. S. Public Health Service #5 R01 HE08411 and RR 261, University of Miami Clinical Research Center.

The presence of severe muscle wasting and weakness is a poor prognostic sign as is peripheral edema. On the other hand, a very large liver, if not due to acute fatty infiltration, is an excellent prognostic sign and generally indicates a degree of hepatic reserve which improves the chance of a favorable operative result. Conversely the small shrunken liver which cannot be palpated even in the absence of ascites usually indicates far advanced disease with an accompanying poor overall prognosis.

The presence of hepatic coma when precipitated solely by bleeding is not necessarily an indication of a poor prognosis. In certain patients with spontaneous marked portal-systemic shunting a gastrointestinal hemorrhage will precipitate a condition of portal-systemic encephalopathy and does not necessarily indicate active liver disease. On the other hand, those patients who have hepatic coma precipitated by bleeding at a time of general hepatic deterioration are much greater operative risks.

Liver Function Tests

There are a few simple tests of established value in the assessment of the extent of liver cellular damage as well as the degree of activity of the disease. These include serum bilirubin, serum glutamic oxalacetic transaminase, prothrombin activity, alkaline phosphatase bromsulphalein retention test, and protein electrophoresis. Repeated determination of these values is helpful in preoperative assessment of the disease.

Needle liver biopsy is usually not needed to establish the diagnosis of liver cirrhosis. However, in the absence of clinical evidence of liver disease the biopsy helps to distinguish between the other possible causes of portal hypertension. Needle liver biopsy is especially indicated in the preoperative work-up of patients whose serum enzyme level remains elevated. If the biopsy shows nu-

merous acute or chronic inflammatory cells the active nature of the disease is confirmed; if Mallory bodies are found in addition surgery should usually be avoided because of the high operative risk.

Estimation of Hepatic Blood Flow

Although there is no really satisfactory method of determining hepatic blood flow in the cirrhotic, hepatic blood flow may be estimated by injecting 30 microcuries of radioactive gold (AU 198) through a needle into an unobstructed antecubital vein and monitoring the disappearance rate over the temple.[1] The height of the curve is measured at specific times, plotted on semilogarithmic paper and the "half time" is determined. The normal K value is 0.29 ± .05 and represents that portion of the blood volume perfusion of the liver per minute. Three groups of patients could be identified according to the degree of restriction of hepatic blood flow: mild restriction (average K value 0.23 ± .07), moderate restriction (average K value 0.19 ± .05), and severe restriction (average K value .16 ± .05). This procedure has the advantage of being very simple and easy to repeat. It is useful in separating the patients with nearly normal from those who have very low hepatic blood flow. The results of this test should be interpreted carefully because some of the isotope is picked up by the bone marrow and by the spleen.

Hepatic Vein Catheterization

A No. 7 catheter, with a single hole at its tip, is introduced into the basilic vein in the antecubital fossa and is advanced through the right side of the heart and the inferior vena cava into a major hepatic vein. The catheter is placed in a wedged position and the wedged hepatic vein pressure (WHV) is obtained. The catheter is then withdrawn into the free hepatic vein and the pressure is recorded (FHV). The latter is subtracted from the wedged hepatic pressure to get the corrected sinusoidal pressure. Once more the catheter is wedged and a wedged hepatic venogram is obtained by injecting 12 cc. of 75% Hypaque at a rate of 2/ml. per second. Two films are exposed each second for the first three seconds and one for each second for the following six seconds. Before the catheter is withdrawn a left renal venogram is obtained to make sure that this vessel is anatomically suitable for a splenorenal shunt.

Hepatic vein catheterization was done in this series with virtually no complications. The preoperative hepatic wedged pressures were found to correlate fairly accurately with the operative free portal vein pressures. The same degree of correlation was observed between the post shunt operative portal vein pressures and the postoperative hepatic wedged vein pressures in those patients with *hepatopetal* portal flow postoperatively. This did not apply to the patients who had presinusoidal block secondary to bilharzial fibrosis, or those with hepatofugal portal flow following the shunt.

Hepatic venography is very useful in the study of hepatic portal blood flow. Normally all the dye injected in the hepatic wedge leaves the liver via the hepatic vein. In liver cirrhosis there may be retrograde filling of the branches of the portal vein. The extent of this filling reflects the degree of restriction of hepatic portal blood flow. On this basis the patients are divided into four categories. Category I shows no filling of the portal vein; Category II shows minimal filling of the smaller branches of the portal vein; Category III shows an almost stagnant column of dye in the major intrahepatic branches of the portal vein; Category IV shows complete reversal of flow in the portal vein. We have found this information to be extremely useful in the study of the demodynamic changes before and after surgical treatment, and in the selection of an appropriate operative procedure (Figs. 1 and 2).

Operative Pressures

At the time of surgery the pressure in the portal vein is measured (FPVP), the vein is then clamped and the pressure obtained on both sides of the clamp. The pressure obtained on the hepatic side of the clamp is called the hepatic occluded portal pressure (HOPP), while the pressure obtained on the intestinal side is called the peripheral occluded portal pressure (POPP). There is usually a marked difference in these pressures (POPP minus HOPP) in patients who maintain a normal or near normal hepatic portal blood flow. In an emergency operation this can be utilized to avoid the total shunting of a high volume portal flow. If a portacaval shunt is constructed a pressure gradient of less than 5 mm. Hg. indicates an adequate anastomosis.



Fig. 1.—Hepatic wedge venogram. Category I, no filling of portal vein.



Fig. 2.—Hepatic wedge venogram. Category IV, retrograde filling of portal vein.

Splenoportography is the most definitive investigative means in the field of portal hypertension. It demonstrates the position as well as the patency of both the splenic and the portal veins. It is also extremely useful in estimating the hepatic portal blood flow. Early and dense opacification of the liver indicates that the flow is mainly hepatopetal. Diversion of the dye to the coronary vein and the area of varices occurs in patients with marked restriction of hepatic portal blood flow.

Cardiac Output

Using indocyanine green the cardiac output is measured both before and after the operation. We have found a significant increase in the cardiac output in those patients with severe hepatocellular damage and Del Guercio et al,[2] have found that the risk of surgical intervention is much greater among the cirrhotic patients demonstrating a hyperdynamic circulation as opposed to those who had normal or near normal preoperative cardiac output.

Splenoportography

Under local anesthesia a small stab wound is made in the left posterior axillary line in the ninth interspace. While the patient holds his breath a polyethylene catheter is threaded over a spinal needle and introduced into the splenic pulp and the needle is removed. Fifty ml. of 75% Hypaque are injected at a rate of 10 cc. per second. X-ray exposures are made at a rate of two each second for three seconds and then one each second for 14 seconds. Indirect splenoportography is obtained by selective catheterization of the splenic artery using the percutaneous transfemoral approach. Sixty cc. of 75% Hypaque are injected at a rate of 8-12 cc. per second. Films are exposed at a rate of two each second for three seconds and then one each second for 14 seconds (Fig. 3). Indirect splenoportography has the advantage of being safe and easy to repeat after the operation. It is of limited value if the spleen is markedly enlarged or if there is severe atherosclerotic involvement of the splenic artery or the celiac axis.

Discussion

In the preoperative assessment of the portal hypertension patient one needs to answer three basic questions: (1) Is surgical treatment indicated, (2) when is the optimum time for operation, and (3) what is the operation of choice for this individual.

By far the commonest indication for surgical treatment is variceal bleeding. Occasionally a patient may present with intractable ascites, satisfactory liver function, and low volume portal flow to the liver. In each case the results of a side-to-side portacaval shunt are usually very gratifying.



Fig. 3.—Direct splenoportography. Note dye filling the collaterals.

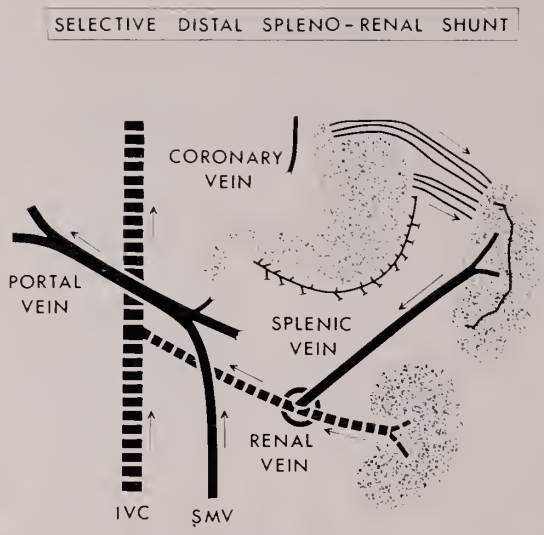


Fig. 4.—Diagramatic illustration of the distal splenorenal shunt operation.

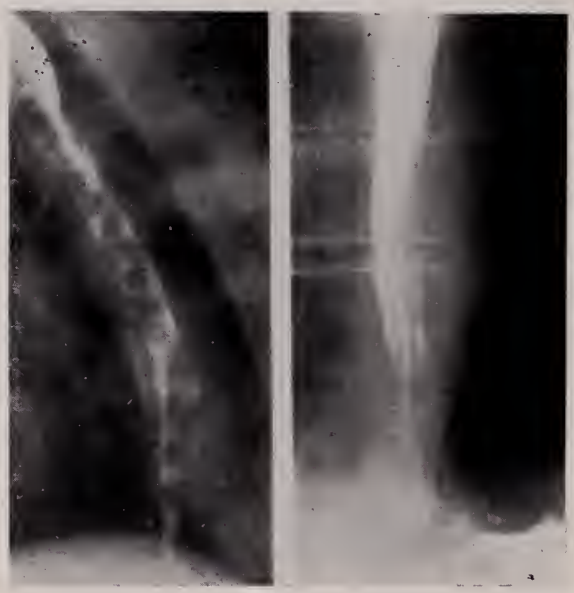


Fig. 5.—Esophagogram shows reduction in size of the varices after distal splenorenal shunt.

Proper timing of the surgical treatment is very important. The advantages of waiting until all the stigmata of active disease have disappeared usually outweigh the risks of rebleeding. Elective surgery should also be delayed for two to three months if the patient has been actively drinking or if he has had a recent major bleeding.

Portacaval shunt is the most widely performed operation in the treatment of portal hypertension. Enough data have accumulated to document the effectiveness of this operation in the control of variceal bleeding. However, several investigators have raised serious questions regarding the overall increase in patient survival after this operation.[3,4] Critical analysis of the causes of death in well



Fig. 6.—Venous phase of splenic artery injection illustrates the patency of distal splenorenal shunt.



Fig. 7.—The venous phase of superior mesenteric artery injection after distal splenorenal shunt. Note excellent liver perfusion.

randomized studies have shown that there is an increased rate of liver failure in the surgically treated group.[5,6] Other equally important studies have shown that the incidence of encephalopathy after portacaval shunt can be as high as 57% and that no more than 15-20% of the total number of patients could return to work.[7]

Analysis of the results of portacaval shunts in our series revealed some interesting observations.[8-10] First, after side-to-side portacaval shunt there is total diversion of portal blood away from the liver. Second, patients who have marked restriction of hepatic portal blood flow tolerate the operative diversion of the remainder fairly well. For such patients we consider that portacaval shunt is the operation of choice. On the other hand, those patients who have high hepatopetal portal blood flow usually react poorly to portacaval shunt. It occurred to us early in the series that portasystemic disconnection might offer these high flow patients a better chance. Splenectomy and a devascularization procedure similar to that reported by Womach and Peters[11] was tried. Encephalopathy after this operation was rare but the incidence of rebleeding was alarmingly high.

A new approach to the surgical treatment of the high portal flow patients was described by Warren et al in 1967.[12] It consists of selective decompression of the esophageal varices while maintaining liver perfusion with portal blood. This operation is called distal splenorenal shunt. The splenic vein is transected close to its junction with the superior mesenteric vein. The central end is closed while the peripheral end is anastomosed end-to-side to the left renal vein. The spleen is left in situ and the short gastric veins drain the varices to the splenic vein, across the shunt and into the left renal vein (Fig. 4). In order to completely isolate the portal vein from the area decompressed by the shunt, the coronary vein is also ligated.

There were 30 patients in this series on whom a distal splenorenal shunt was performed. None of these patients rebled during the period of follow-up which varied from three months to four years. There was no incidence of encephalopathy and the patients usually were able to resume their preoperative activities.

Postoperative barium studies showed that the varices became smaller in size (Fig. 5). Angiographic study established the patency of the shunt in all patients except two (Fig. 6). The main advantage of this operation was demonstrated by selective injection of the superior mesenteric artery. The venous phase showed excellent liver perfusion (Fig. 7).

At the present time it seems that distal splenorenal shunt operation has accomplished its theoretical requirements. However, it should be done only by surgeons who are experienced in the field of portal hypertension. The mortality in our series has dropped considerably during the last two years, there being two operative deaths among the last 18 patients.

Summary

Our experience with the recent techniques in the study of hepatic physiology has been described. Patients with portal hypertension are classified into two groups, those having marked restriction of hepatic portal blood flow, for whom portacaval shunt is the operation of choice; and those who have high hepatic portal blood flow, who are best treated with selective decompression of their varices while maintaining the liver perfusion with portal blood. The distal splenorenal shunt is a new operative procedure which seems to meet these qualifications. Although prolonged patient survival can be demonstrated only with prospective randomized studies, the absence of variceal bleeding and encephalopathy for as long as four-plus years is striking.

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Surgery for Esophageal Hiatus Hernia

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The incidence of esophageal hiatus hernia in the general population has been estimated variously at 2-6%. At the University of Miami Medical Center a hernia is noted in one of every five patients undergoing radiologic examination of the upper gastrointestinal tract. From this group, one or two patients in 100 have required surgical therapy. Obviously, the presence of a hiatus hernia per se does not constitute an important indication for operative correction since only 1-2% of all patients with this defect seem to require it. This is an important clinical distinction and the failure to appreciate it has contributed mightily to a large literature replete with controversial anecdotes. Clearly, there is no virtue in considering surgical therapy for hiatus hernia but rather to consider why surgery at all for this condition.

Why Surgery?

The consensus of informed surgical opinion recognizes the complications of gastroesophageal reflux as legitimate indications for surgical therapy. These include esophagitis with or without stricture and pulmonary disease due to aspiration. While these conditions usually are found to coexist with esophageal hiatus hernia, the latter is by no means a requirement to their development. Certainly achalasia of the esophagus with gastroesophageal reflux and not accompanied by hiatus hernia is a well recognized clinical entity. The emphasis in surgical treatment then is the correction of a defect which facilitates the regurgitation of corrosive gastric contents into the esophagus and when this is accomplished successfully it seems to matter little whether the stomach resides wholly in the abdomen or partially in the chest. While the ecology of the stomach appears to have a relatively unimportant role in determining gastroesophageal reflux, its angular relationship to the terminal portion of the gullet may have certain importance for the integrity of the valvular mechanism at the cardioesophageal junction. At any rate, reflux is associated with a loss of the normal high pressure zone in the terminal esophagus and with the consequent appearance of a pressure gradient favoring "backward" flow of gastric contents. The relative contributions of (1) intrinsic esophageal motor activity and (2) extrinsic intra-abdominal pressure acting on the intra-abdominal esophagus are not known. However, it is clear that reflux may occur in the presence of the usual length of intra-abdominal esophagus. Thus, the question, "why surgery for hiatus hernia?" is answered, in that such surgery is directed to the relief of gastroesophageal reflux which most often is associated with esophageal hiatus hernia. Properly, the topic should be entitled "The Surgery of the Incompetent Cardia."

Appropriateness of Surgical Therapy

Consideration of a number of factors is required in the decision making process which will decide the appropriateness of surgical therapy for a patient with gastroesophageal reflux. The most compelling among these factors is the failure of sound, carefully administered medical management to control the corrosive injury to the gullet. This is suggested by the persistence and increasing severity of symptoms which include pain, belching and flatulence, regurgitation, dysphagia, bleeding and respiratory complaints. Within this set of symptoms, pain is the most frequent. While sometimes called heartburn, the pain is usually described as gripping and burning and experienced deep behind the lower sternum with variable radiation to the left neck, ear, or jaw. The pain may be accentuated by changes in position such as bending over. Many of the patients with gastroesophageal incompetence demonstrate marked aerophagia, and turbulent, resonant belching may become an integral part of the patient's personality. The usual complaint concerning regurgitation relates mainly to the accurate definition known as "sour brash." Occasionally, however, the most disturbing symptom is due to the repetition of strong flavors which have been partially affected by impermanent residence with-

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in the gastric cornucopia. Nocturnal regurgitation, however, may be the most distressing as well as dangerous when accompanied by aspiration in the supine position. If uncorrected this problem may result in severe pulmonary complications.

Etiology of Dysphagia

The etiology of dysphagia in these patients must be carefully assessed. Frequently, no discernible cause is identified and the presumptive diagnosis of spasm is entertained. However corrosive injury to the esophagus—so called peptic esophagitis—does lead to stricture formation which we believe requires aggressive therapy. Microscopic examination of the lesion known as "peptic esophagitis" demonstrates inflammation in the submucosa with variable involvements of the muscularis propria and the mucosa. While the latter may be intact overlying inflammatory foci in the deeper layers, there is invariable loss of some mucosa presenting as discrete shallow ulcers. These histopathologic findings, especially the relatively greater submucosal versus mucosal involvement, have formed the basis for doubt concerning the validity of the reflux theory of esophagitis. An expanded exposition on this point is not appropriate to our theme, however, we must identify our prejudices for the purposes of understanding the rationale of the surgical therapy which we propose. Based on the results of studies of pH recorded from the esophagus and the disappearance of esophagitis following the correction of reflux, we believe the concept of regurgitant or peptic etiology to be sound.

In order to establish the diagnosis of corrosive injury to the esophagus, endoscopy with or without biopsy is required. On the other hand, the competence of the gastroesophageal junction may be assessed by lesser intubations which serve to provide recordings of intraluminal pressure and/or pH. Cine-esophagography is also an eminently useful technique.

Appropriate Procedure

When indications favor the surgical correction of gastroesophageal reflux, selection of the appropriate operation may be difficult because of the multitude of procedures which have been recommended. Approximation of the divergent components of the right diaphragmatic crus has been proposed in conjunction with repair of the phrenoesophageal ligament, vagotomy and pyloroplasty, gastrectomy, gastropexy, fundoplication, the Hill and Belsey procedures. In recent years the most popular additional component to crural suture has been any technique designed to provoke a degree of invagination of the gullet into the salubrious intragastric environment in order to achieve restoration of the aforementioned high pressure zone in the distal esophagus. When this restoration is successful, reflux is corrected. At the University of Miami we prefer to achieve this end by the addition of fundoplication to crural suture. The techniques which we have employ-

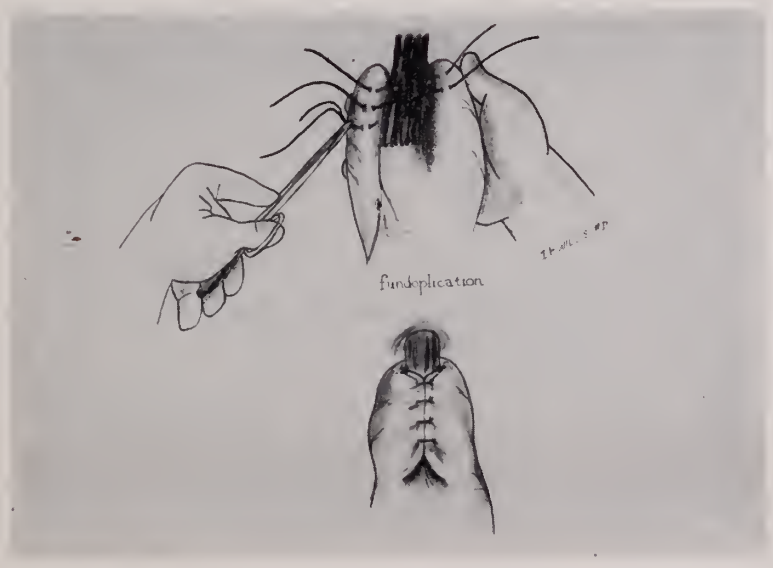


Fig. 1.—The key technical details of fundoplication are illustrated in the transabdominal operation. The procedure can be as well accomplished by thoracotomy when warranted. (Reproduced with permission of the editors of The Annals of Thoracic Surgery 7:202-211, 1969, and Little, Brown and Company.)

ed are identical to those proposed originally by Nissen. The preference for thorough mobilization of the gastric fundus and division of the gastrohepatic ligament allows plication readily without esophageal constriction. It is crucial that the gastric wrap not strangle the terminal esophagus. If a tendency to cinch up the stomach as tightly as the proverbial corset is even a remote possibility, then a large tube should be inserted into the esophagus prior to attempting the procedure.

Our preference for fundoplication has been and continues to be predicated on the ancient and admired principle of the three S's. It is simple, safe, and successful. Eighty patients have been treated and the median duration of follow-up is somewhat over three years. In this group are three recurrent hernias, two with reflux and one patient has postoperative esophagitis. Two patients have died. This experience is reasonably similar to that recorded from the surgical community at large. Examination of information compiled from the treatment of more than 1,700 patients reveals the hospital mortality to be nearly 1% and the overall failure to solve the problem of gastroesophageal reflux is 4%. Clearly, fundoplication fulfills the requirements of simplicity, safety, and effectiveness. The total cost, however, is not provided by the low death and failure rates. As for all surgical procedures there is a cost in postoperative morbidity.

Following this operation, a set of symptoms which includes abdominal distention, the sense of subdiaphragmatic pressure, hiccoughs and early satiety has affected an estimated 25% of the recipients of the surgeon's largess. This symptom complex has been aptly entitled the "Gas-Bloat Syndrome" by Woodward. Fortunately it is usually self-limited and has persisted to some degree or other in only three of our 80 patients beyond three months.

Summary

In summary, our experience has exposed only a minimal demand for surgical correction of esophageal hiatus hernia. The primary indication for surgery is the occurrence of endogenous corrosive injury to the gullet for which the Nissen fundoplication is effective and incurs a low risk.

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Eating and drinking takes away one's stomach.

French Proverb

Base men live to eat and drink, and
Good men eat and drink to live.

Socrates

Diagnosis of Pancreatic Disease

Bernard Brom, M.D. and Martin H. Kalser, M.D., Ph.D.

The pancreas, situated as it is in the retroperitoneal space, has always been a most difficult organ to investigate. Consequently, a concerted approach utilizing specialized and diverse methodology may be necessary in the recognition of chronic inflammatory or malignant body or tail affectations. These are radiographic techniques, including barium and air contrast of the stomach and duodenum, and angiography; radioisotopic and secretory and fecal assays. Several procedures are usually necessary in any given patient, and the choice is dependent not only upon the clinical problem but on the experience and capability of the institution, since special equipment and experience may be necessary for many of these.

This review aims to consider the status of pancreatic diagnostic aids at the present time, and to present our approach to this diagnostic problem.

Symptoms and Signs

These tests are indicated when there is a strong clinical suspicion of chronic inflammatory or malignant disease of the pancreas, and the usual diagnostic aids do not establish a definitive diagnosis. The particular symptoms which suggest the possibility of pancreatic involvement include abdominal pain, usually in the upper abdomen and with a component of back radiation. Recent progressive weight loss is also a major symptom. The recent onset of hyperglycemia or diabetes should also suggest the possibility of pancreatic involvement. Other less definite symptoms include a change in bowel habits and vague abdominal symptoms when associated with weight loss. Obstructive jaundice in the absence of symptoms suggestive of choledocholithiasis is also an indication for investigation for possible pancreatic carcinoma of the head.

The radiologic signs depend to a large extent on the presence of a mass which may be inflammatory enlargement of the head of the pancreas or malignancy, a cyst or pseudocyst. Inflammatory reaction and invasion can also cause deformity of contiguous structures. These include those in close proximity to the pancreas, as the stomach, duodenum, and ligament of Treitz. The common bile duct may be obstructed or compressed, and dilatation of this structure and/or the gallbladder may secondarily compress the duodenum. Blood vessels may also be obstructed or displaced on infiltration. It is best always to begin with the usual gastrointestinal examination with barium, looking in particular for any displacement of the stomach, second portion of the duodenum or ligament of Treitz. Early radiologic signs which should be looked for carefully by the radiologist include flattening and indentation of the medial wall of the second portion of the duodenum with a so-called "double contour," which is a double margin, alteration of the height, width and direction and also of the mucosal folds. The ligament of Treitz usually is an acute angle, and when it is displaced downward due to a mass in the pancreas, it becomes obtuse. Hypotonic duodenography is usually indicated when pancreatic lesions, particularly of the head, are strongly suspected. In this technique atropinization is accomplished with high doses of parenteral Banthine or Atropine. A tube is passed into the distal antrum of the first part of the duodenum, and a mixture of air and barium are given. This helps relax the duodenum and promotes the greatest distension of the second and third part of the portion of the duodenum so that the signs previously noted can better be elucidated. In cases of suspected obstructive jaundice, the indentation upon the postbulbar region of a dilated common duct can sometimes be recognized.

Celiac axis angiography and supraselective arterial angiography have been proposed as definitive aids for the diagnosis of pancreatic lesions. Here one can look for either tumor staining of the dye or displacement of the blood vessels in part of the pancreas. This procedure, in our experience, has the greatest value in cases of insulinomas, cystadenomas and sarcomas of the pancreas which exhibit the characteristic tumor staining. It has been much less successful in the diagnosis of carcinoma, adenocarcinoma of the body or tail of the pancreas. In splenoportography thrombosis of the splenic vein may occur due to tumor invasion. However, this is a rare accompaniment,

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and this procedure is not done in suspected cases of pancreatic carcinoma.

Pancreatic scanning with selenium methionine theoretically should be of major help in the diagnosis of pancreatic lesions, but techniques have not been perfected to the point where it is a helpful and definitive procedure. In the technique, the radioactive selenium methionine is given intravenously, and this is followed by a test meal, following which the pancreas is scanned. The theoretical basis is that the radioactive selenium in the methionine molecule forms the basis of the outline of the pancreas. The methionine with the radioactive selenium under stimulation is picked up from the blood by the pancreatic acinar cells, and this amino acid is synthesized rapidly into enzyme protein. The stimulus for this is the test meal. The refined machinery, including scinti-scanning and dual channel substraction—scanning procedures in which the liver image is removed from the picture—shows promise, but still has not eliminated the false positives and negatives. We have found that a perfectly normal scan in which the entire pancreas is visualized rules out any chronic inflammatory disease, and to a great extent rules out a malignancy of the pancreas. However, false negatives are extremely common in which there is poor visualization of all or part of the pancreas, and in which surgical exploration has revealed a normal pancreas. Further refinements in this technique, which are being evaluated in our laboratory, are the use of the specific hormone pancreozymin to stimulate acinar uptake of selenium methionine and synthesis of protein, as well as combining this technique with duodenal intubation and directly studying radioactivity in the pancreatic secretion. Nevertheless, this procedure is valuable as a screening procedure.

Other Diagnostic Tools

Other main diagnostic tools for pancreatic disease include the evaluation of pancreatic exocrine function. In considering this function one must be knowledgeable about the basic physiology of the exocrine pancreas, and also remember that the glands of the exocrine pancreas and endocrine pancreas are closely aligned with each other, so that disease of one will also affect the other. The pancreas is the most important organ for assimilation of all types of foodstuffs, including carbohydrate, fat and protein, and this organ secretes a variety of enzymes associated with the digestion of these substances. Included are the proteolytic enzymes, trypsin and chymotrypsin, amylase for the assimilation of carbohydrate, and lipase for the digestion of neutral fat. In addition, the pancreas secretes water and bicarbonate. In the complete absence of pancreatic juice, nutrition is markedly impaired for all foodstuffs. However, the pancreas has quite a large reserve so that secretion may be diminished due to disease without there being significant impaired assimilation.

Pancreatic secretion is stimulated by hormonal and neural control. The former are secretin and pancreozymin which are secreted by the duodenal mucosa cells into the blood stream and travel via the blood to the pancreas where they stimulate secretion. These hormones are released by the duodenal mucosa in response to acid or foodstuffs in contact with the mucosa. Secretin stimulates primarily the small duct cells to water and bicarbonate, whereas pancreozymin works on the acinar cells to stimulate the secretion of enzymes of all types. Pancreozymin has been shown to be identical with cholecystokinin, the hormone which causes the gallbladder to contract. Secretin is also a hydrocholeretic agent, stimulating the flow of a watery bile solution.

The fecal contents can be assayed for assimilation and pancreatic enzymes. Fecal fat can be measured microscopically, by isotopic means or by chemical determinations. These fecal methods are somewhat cumbersome and relatively insensitive and not markedly impaired unless there is severe pancreatic insufficiency. In doing fecal fat, a 72-hour quantitative collection is done while the patient is on a 75-125 Gm. fat intake. One determines the total fatty acids in the stool, and normally there is less than 5 Gm. per day of fat in the stool. Experienced observers can also note the fecal fat on a microscopic slide after staining with Sudan red.

I^{131} radioactive iodine labeled fats have been used in the past. These include both the triolein and oleic acid. Theoretically, in pancreatic insufficiency, after the giving of radioactively labeled triolein there will be increased radioactivity in the stool and low radioactivity due to the iodine in the blood since there is an absence of pancreatic lipase to hydrolyze the triolein. In other cases of fat malassimilation due to intestinal disease the fecal levels of radioactivity after both triolein and oleic acid would be high, while the blood levels would be low. In pancreatic disease, the values would be normal when oleic acid was ingested, and only abnormal when the triolein was ingested.

Fecal assays of chymotrypsin have been advocated as a screen for pancreatic disease. According to this concept, a normal chymotrypsin in a random fecal specimen would mitigate strongly against the presence of pancreatic insufficiency. A low value, however, would not be diagnostic. This probably has limited value. Secretory studies are probably the major way of assessing pancreatic exocrine function. These include the secretin or secretin pancreozymin stimulation with the double lumen tube in the duodenum. After the tube is placed fluoroscopically, these hormones are given intravenously and one measures the volume, bicarbonate and enzyme concentration in aspirate. The most critical determination is that of the bicarbonate concentration, which should be at least 90 mEq. per liter in any one of the fractional aspirates after 90 minute aspiration of the duodenum after secretin. Refinements include the use of higher doses of secretin in an augmented secretin test. The major limitation of the test is that it is uncomfortable to the patient, and requires fluoroscopic monitoring. It is time consuming and experience in placing the tube and performing the procedure is needed. More recently test meal techniques, including the Lundh, have become very worthwhile. In this technique a small polyvinyl tube is intubated into the proximal jejunum. A standard liquid meal is given and the contents are aspirated. Concentration of enzymes, particularly lipase and trypsin, is measured. In our hands this can result in a clear separation of normals from those with pancreatic insufficiency. If malignancy is suspected, one can add cytology to the intubation secretory studies.

The glucose tolerance test, despite the fact that it measures pancreatic endocrine rather than exocrine function, remains an excellent screening procedure. It is relatively insensitive, and there may be false positive tests. However, we believe that a diabetic-type glucose tolerance curve is an early screening procedure, and a normal glucose tolerance is strong evidence against pancreatic involvement.

Pancreatic evaluation is done in a coordinated fashion. An upper G.I. series in a nonjaundiced patient is the first study after the routine laboratory workup. Particular emphasis should be placed on visualization of the second and third portions of the duodenum and ligament of Treitz for mucosal pattern or evidence of displacement. This is followed by hypotonic duodenography if all portions of the duodenal sweep are not completely visualized or if there is any suspicion of a lesion. These barium studies are followed by a pancreatic scan as a screening procedure. If the barium studies are completely negative and the scan is quite normal, and also if all the laboratory work, including the glucose tolerance tests, is normal with an equivocal clinical configuration, the investigation is complete and no further studies need be done. However, if there is any suspicious finding in the x-rays, scan or laboratory findings, or if there is a high degree of clinical suspicion, the specialized pancreatic function tests with duodenal intubation should be carried out. Selective angiography is only done in a few instances when insulinoma or other retroperitoneal lesions are suspected.

The decision as to whether laparotomy is indicated is based on clinical judgment evaluating all of the data. If the symptoms remain unexplained and the pancreatic function tests are distinctly abnormal, we believe laparotomy is indicated. A particularly difficult diagnostic problem has been females in the fourth to sixth decade with persistent upper abdominal pain, some back radiation and with nausea, vomiting and weight loss. In these patients, the diagnosis of chronic pancreatitis is suspected. While barium studies are normal, the glucose tolerance and pancreatic scan have been distinctly abnormal, with pancreatic function tests showing minimal depression. Exploration, when carried out in certain of these individuals, has been negative.

Conclusion

The basic question remains as to whether diagnosis of pancreatic disease will aid the therapy of the patient. Certainly if the affectation of the pancreas is chronic relapsing pancreatitis, medical and surgical therapy can be successful. Unfortunately, the 5-year cure rate for adenocarcinoma of the pancreas has not improved during recent years, but the hope remains that with pursuance of better diagnostic techniques, an early diagnosis can be made with successful surgical intervention.

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Lingering Hepatitis

I. Arvey Rogers, M.D.

Several excellent reviews of chronic hepatitis have appeared recently and are recommended.[1,2] The patient who fails to recover from apparent acute "viral" hepatitis presents a therapeutic dilemma to the responsible physician, as does the individual with the gradual onset of what ultimately evolves to be a chronic active hepatic disease of uncertain origin, often associated with progression to cirrhosis. This paper will consider the clinical entity which may be represented by both circumstances described above, active chronic hepatitis.

Clinical Features

The usual circumstances in which chronic hepatitis is considered a diagnostic possibility is in association with apparent acute "viral" hepatitis, despite the observation that less than 30% of well-described cases of active chronic hepatitis have followed viral hepatitis. Nonetheless, chronic hepatitis should be entertained seriously in any individual who presents one or more of the following features associated with a hepatitis infection: (1) an atypical prodrome; (2) unusual depth or duration of jaundice; (3) associated stigmata of chronic liver disease as ascites, edema or coma; (4) evidence of multisystem involvement; (5) a prothrombin time $<$ 60% of normal; (6) the persistence of active liver disease more than four months following the acute infection; (7) the occurrence of relapses of the hepatitis infection, and (8) persistence of hepatitis associated antigen (HAA, Australia antigen*).[3,4]

As alluded to in the second variation on its presentation, chronic hepatitis evolves over a several to six-month period in almost 70% of the affected patients, and hepatic disease may not be the apparent primary manifestation of the disease at the outset.

The disease may have its onset in any age group and either sex may be affected; some series have indicated a predominance for females.

The usual features drawing attention to the diagnosis of chronic hepatitis are jaundice, transaminase elevation 8-10x increased, an increase in the serum gamma globulin concentration and, often, circulating antibodies. A list of clinical features occurring in 86 patients with chronic hepatitis discussed by Mistilis and Blackburn is presented in Table 1.[2] Important to appreciate is the observation that 20% of affected patients have an anicteric illness. A fever of unknown origin or obscure abdominal pain may be the presenting manifestation as may amenorrhea, acne, arthritis, renal disease or colitis.

Abnormal tissue and serologic antibody reactions such as false positive tests for syphilis, LE cell phenomena and antinuclear and smooth muscle antibodies are observed with variable frequency in active chronic hepatitis. Their basis is unknown but is considered by Mackay and others to represent evidence that the disease has an autoimmunopathogenetic basis.[5] Whatever their significance, these abnormal antibody reactions may be of some value in differentiating this form of liver disease from atypical hepatitis, alcoholic liver disease, drug-induced hepatitis, extrahepatic biliary obstruction and biliary cirrhosis.

Etiology

The etiology of chronic hepatitis is not known. A persistent viral infection independent from an autoimmune process and an autoimmune process possibly, though not necessarily, related to a preceding viral infection of the liver constitute the main theoretical etiologic considerations. Apparent "viral" hepatitis has occurred in 30% of affected patients. Large group surveys for Australia antigen have revealed positive titers in up to 25% of patients with chronic hepatitis.[6] In a

Table 1.—Clinical Features In Chronic Active Hepatitis.

	Feature	Frequency
1.	Recurrent "hepatitis"	Frequent
2.	Episodic jaundice	60%
3.	Prolonged cholestasis (1-2 years)	25%
4.	Hepatic coma	30%
5.	Portal hypertension	40%
6.	Amenorrhea	38%
7.	Acne	21%
8.	Diarrhea	28% (chronic)
9.	Ulcerative colitis	10-15%
10.	Skin lesions	20%
11.	Polyarthralgias	18% (recurrent)

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*The terms "Australia antigen," "hepatitis-associated antigen" and its abbreviation "HAA" are used interchangeably in this paper.

recent paper, Boyer and Klatskin reported that serum hepatitis (SH) predominated over infectious hepatitis (IH) as apparent etiologies in 52 patients studied with subacute hepatic necrosis (active chronic hepatitis).[3] One would suspect that had Australia antigen assays been carried out by these authors, the incidence of positive results would have been high in view of the known close correlation between serum hepatitis infection and a positive titer for Australia antigen.[7] These observations suggest the possibility that a persistent viral infection may be responsible for one form of chronic hepatitis.

Further observations of possible relevance to obtaining assays for HAA are: (1) In one reported series, 90% of patients with HAA-positive hepatitis had a more prolonged hospital course with SGOT values remaining above 100 units until after the eighth week; this was contrasted with HAA-negative cases in whom SGOT values were less than 100 by the fifth week of illness.[8] (2) Unusually long persistence of HAA indicates progression to chronic hepatitis, whether symptoms subside or laboratory tests return to normal.[4]

Application of HAA assays to serum from patients with chronic hepatitis has disclosed that there are "HAA-positive" and "HAA-negative" types. The latter patient category is generally female, is more likely to have positive LE tests, circulating smooth muscle antibodies and other lupus-like features. Those patients with chronic hepatitis and circulating HAA are predominantly male, usually give a history of antecedent acute hepatitis with a strong parenteral exposure, and have a low incidence of + LE cells and circulating antibodies.[4]

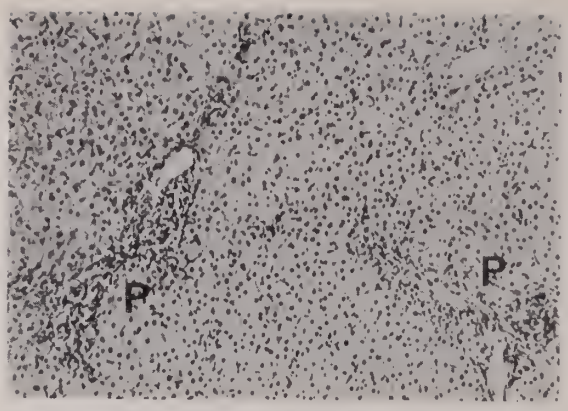
Mackay's autoimmune "markers" in chronic hepatitis (called "lupoid" hepatitis by Mackay et al) are: (1) circulating autoantibodies such as LE cells, smooth muscle antibodies; (2) evidence of multisystem involvement; (3) association of other diseases felt to have an autoimmune basis as thyroiditis, nephritis and colitis; (4) the hepatic plasmacytic and lymphocytic infiltrate; and (5) the often favorable response to steroid and antimetabolite immune suppressive therapy.[9] These are employed as evidence for the autoimmune basis of the disease. No pathogenetic significance can be assigned the circulating autoantibodies; therefore, evidence for autoimmunity as a perpetuating factor is inconclusive. As well, the dosage of antimetabolite drugs commonly employed therapeutically (6-mercaptopurine or azathioprine) may not suppress immune responses but have been shown to exert antiviral effects.

To summarize etiologic considerations, it is likely that there are two varieties of active chronic (aggressive) hepatitis as distinguished by the presence (positive) or absence (negative) of the hepatitis associated antigen (HAA). That associated with persistent HAA may be a sequel to "viral" hepatitis; that without HAA may represent one manifestation of a spontaneously occurring immunologic disorder affecting many other body tissues. We need to learn more of the etiologic and pathogenic significance of HAA, its immunologic competence and the presence of HAA antigen-antibody complexes in serum and tissue of patients with certain varieties of active chronic hepatitis.

Pathology

Only by liver biopsy can the diagnosis of chronic hepatitis be established with certainty, in view of the observations that the atypical, acute and chronic forms may present indistinguishable clinical features. An experienced pathologist acquainted with the variations in hepatic histopathology which may be encountered in acute, prolonged and relapsing stages of hepatitis should be able to recognize the presence of a more persistent, chronic stage of the disease. The application of special stains of the parenchymal supporting framework (reticulin) is necessary for a true appreciation of some of the more subtle structural alterations and classification in the chronic forms of hepatitis. Scheuer has studied these changes extensively and has classified them as (1) chronic persistent and (2) chronic active (aggressive) forms of hepatitis.

Figures 1 and 2 taken from Scheuer's textbook, "Liver Biopsy Interpretation," illustrate the major histologic features of chronic hepatitis and serve to differentiate the aggressive from the persistent form.[10] The major differential features appear to be the extent of piecemeal necrosis (cell erosion at the lobular periphery associated with plasma cell and lymphocytic infiltrate); the formation and proliferation of periportal fibrous septae, and the disruption of lobular architecture as evidenced by collapse and condensation of the reticulin framework. These findings characterize the chronic (aggressive) form of the disease which appears to be a precursor of macronodular postnecrotic cirrhosis. Although not established definitely, it appears that



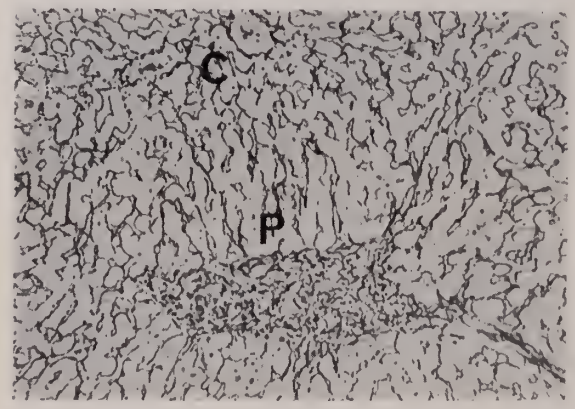


Fig. 1a.—Chronic persistent hepatitis. There is inflammatory infiltration of the portal tracts (P) but with little piecemeal necrosis. Needle biopsy, H & E, X 125.
Fig. 1b.—Chronic persistent hepatitis. Short septa extend from slightly enlarged portal tract (P). Central veins (C) are unaffected and lobular architecture is preserved. Needle biopsy, reticulin, X 135.

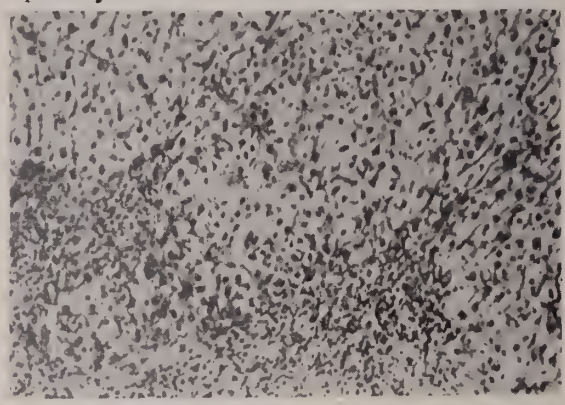
chronic persistent hepatitis is a nonprogressive benign disease with minimal, self-limited clinical manifestations. The aggressive form, on the other hand, is more frequently associated with the clinical stigmata of chronic, active progressive hepatic disease with frequently associated endocrine and systemic manifestations and ultimately the development of macronodular postnecrotic cirrhosis.

Treatment

Considerable controversy exists regarding whether, when and what treatment to apply in patients with active chronic (usually aggressive) hepatitis. The recognition of chronic persistent hepatitis is important in view of its benign, nonprogressive clinical course described by Becker et al.[11] Interestingly, HAA assays were negative in the patients described by Becker.[11] There appears to be no need to apply "specific" therapy to this form of the disease.

On the other hand, the ill individual with apparent chronic (active) aggressive hepatitis poses a therapeutic dilemma. The cumulative five-year survival of untreated patients was shown to be 65% by Mistilis et al.[12] Patients with the worst prognosis were those with a hepatitis-like onset, persistent cholestasis, or prolonged jaundice, associated colitis, episodes of hepatic coma, ascites or extensive necrosis on liver biopsy. The fact that these patients are sick the majority of the time and do not lead a normal life raises serious considerations regarding therapy. Numerous anti-inflammatory drugs have been utilized. Corticosteroids, 6-mercaptopurine and azathioprine (Imuran) have demonstrated the best results. When the disease is most active, in its early stages, these drugs appear to effect improved survival over nontreated patients.[12] The best results, therefore, are apt to be recorded in the sickest patients, the ones in greatest need of treatment.

The decision to treat a patient is a serious one, especially in view of the serious side effects and



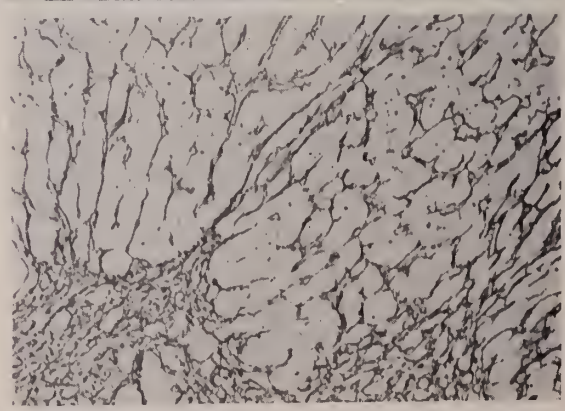


Fig. 2a.—Chronic aggressive hepatitis. Similar area to that in Figure 2b, from the same biopsy. Liver cells are swollen and rounded in the zone of piecemeal necrosis next to the fibrous tissue. Needle biopsy, H & E, X 150.
Fig. 2b.—Chronic aggressive hepatitis. Many septa extend from the enlarged portal tract (above) into the lobule and architecture is distorted. Needle biopsy, reticulin, X 145.

The illustrations are from Scheuer, P., Liver Biopsy Interpretation, Williams and Wilkins Company, Baltimore, 1968, pp. 49, 51.

toxicity of the pharmacologic anti-inflammatory, antimetabolic agents commonly employed, the need for chronic, continuous treatment, and the high relapse rate upon withdrawal or decreased dosage.

It is to be realized, as well, that patients with chronic active hepatitis are very sensitive to these drugs; low doses may cause serious hematologic, cholestatic or hepatotoxic effects as well as unpleasant cosmetic effects. Suggested dosage regimens are outlined in Table 2.

Table 2.—Chemotherapy In Chronic Active Hepatitis.

Drug	Initial Dosage	Maintenance
1. Prednisone	40-60 mg./day	5-20 mg./day
2. Imuran (azathioprine)	1.0-2.0 mg./kg./day	Same
3. 6-mercaptopurine (Purinethol)	0.5-1.5 mg./kg./day	Same

COMBINATIONS: Mistilis has proposed that a combination of prednisone and azathioprine or 6-mercaptopurine be employed in patients ill with overt jaundice.

STEROID REDUCTION: After several weeks of high dosage, an attempt should be made to reduce prednisone dosage over a 4-6 week period to maintenance on 5-20 mg./day.

At periodic intervals an effort should be made to determine whether the medications are, in fact, favorably affecting the course of the illness. Attempts should be made to withdraw drugs gradually every six months; this is often impossible, however, as clinical and chemical relapses are provoked commonly by such an effort.

Most available evidence reveals that treatment, in any form, does not halt the histologic progression of chronic active (aggressive) hepatitis nor alter significantly long-term prognosis. Data on both of these important points is being accumulated throughout the world at the present time.[13] Table 3 summarizes the results of five long-term studies concerned with the effects of chemotherapy on the course of active chronic hepatitis.

Conclusions

Chronic active (aggressive) hepatitis represents a form of chronic, progressive, inflammatory hepatic disease which may have its basis in a continuing viral infection or an autoimmune process. Affected patients are often quite ill and present a relatively high incidence of systemic and endocrine manifestations. Long-term prognosis is poor, but corticosteroid and antimetabolite therapy appear to improve the short-term outlook. The side effects and chronic aspect of chemotherapy would demand that it be reserved for the symptomatically ill patient whose life-style has been altered seriously by the illness.

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Table 3.—Results of Chemotherapy In Patients With Chronic Active Hepatitis.

Series	# of Pts.	Therapy Yes	Therapy No	Percent 5	Survival 10	(Yrs.) 15+
1. BEARN ('56)	23	—	X	65	50+	20+
2. WILLOCX ('61)	33	—	X	40	<20	<20
3. MISTILIS ('68)	139	50	—	80	80	60
		—	89	68	55	55
4. PAGE ('69)	21	X	—	80	60	30+
5. COOK ('70)	49	22	—	86	—	—
		—	27	44	—	—

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An Approach to the Ileal Dysfunction Syndrome

Eugene R. Schiff, M.D.

The ileum plays an important role in the normal maintenance of the absorption of bile acids, fat and vitamin B_{12}. If the functional integrity of the ileum is impaired, defective absorption of these luminal constituents will result, giving rise to various degrees of diarrhea, steatorrhea and vitamin deficiencies.

A clear understanding of the pathophysiology of ileal dysfunction is dependent on one's cognizance of normal fat absorption, bile acid metabolism and vitamin B_{12} absorption. For this reason, the important aspects of each of these absorptive processes will be reviewed in particular as they pertain to normal and abnormal ileal function.

The Role of the Ileum in Physiology of Fat and Vitamin B_{12} Absorption and of Bile Acid Metabolism

Fat Absorption[1]

Following the ingestion and delivery of dietary fat into the proximal small intestine, the fat is hydrolyzed and solubilized. Pancreatic lipase hydrolyzes the long chain triglyceride converting it to β-monoglyceride and long chain fatty acids which are insoluble lipid moieties. Bile salts discharged in the proximal small intestine intimately mix with these lipids and form macromolecular aggregates called micelles. The surface of the micelles consists of the polar ends of the bile salts and lipids, and is water soluble in contrast to the nucleus which is lipid soluble. The formation of these mixed micelles results in solubilization of the lipolytic products into a clear micellar solution. Absorption of the fatty acids and β-monoglycerides takes place at the microvillar surface of the intestional mucosa which is bathed by this micellar solution. In the mucosal cell, the fatty acids and β-monoglycerides are re-esterified to form long chain triglyceride once again. The triglyceride is incorporated with phospholipids, cholesterol and small amounts of protein to form chylomicrons. Finally, the chylomicrons are delivered via the lacteals into the lymphatic system eventually entering the general circulation for peripheral utilization and subsequent storage. Two important aspects of the overall process of fat digestion and absorption should be stressed in regard to ileal function. First, to achieve micellar formation the concentration of conjugated bile salts must be above a critical concentration termed the critical micellar concentration. As will become apparent in this review, the ileum is of great quantitative significance in maintaining a normal bile salt pool size and, hence, adequate concentrations in the proximal small intestine where normally most of the fat is absorbed. Second, although normally most of the fat is absorbed in the jejunum, the ileum is also capable of fat absorption. This is best exemplified by cholestyramine-induced bile salt deficiency which is associated with minimal steatorrhea if the ileum is intact. In spite of defective micelle formation, significant fat absorption occurs as a result of the reserve capacity of the ileum being activated to compensate for faulty proximal absorption.

Bile Acid Metabolism[2]

In man, the primary bile acids, cholic acid (trihydroxy) and chenodeoxycholic acid (dihydroxy) are synthesized in the liver from cholesterol. These primary bile acids eventually gain access to the distal small intestine where anaerobic bacteria are encountered that produce a dehydroxylase. This enzyme acts at C_7 and converts cholic and chenodeoxycholic acids to the respective secondary bile acids, deoxycholic (dihydroxy) and lithocholic (monohydroxy) acids. Lithocholate is relatively insoluble at intraluminal pH ranges and precipitates out to be excreted in the feces. Deoxycholate is reabsorbed together with the remaining cholate and chenodeoxycholate. The recovered primary and secondary bile acids, together with the newly synthesized primary bile acids, are all conjugated in the liver with either glycine or taurine prior to secretion into the bile. The bile acids discharged into the proximal small intestine must be conjugated to insure normal

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micelle formation. In the distal small intestine anaerobes deconjugate, as well as dehydroxylate, a significant proportion of the bile acids.

In contrast to fat absorption, relatively little of the bile acid pool is absorbed in the jejunum and the major portion of the pool is absorbed in the distal small intestine. These regional quantitative differences in bile acid absorption are a result of regional differences in transport mechanisms. Along the length of the small intestine passive transport mechanisms are present. In general, the bile acids with the greatest number of hydroxyl groups, i.e., trihydroxy, and those conjugated with the largest amino acid, i.e., taurine, are passively absorbed at the slowest rates. For example, taurocholic acid, a trihydroxy taurine conjugate, is absorbed at a rate much less than that of deoxycholic acid, a dihydroxy free bile acid. Since passive nonionic monomer diffusion of bile acids is much faster than passive ionic monomer diffusion, quantitative recovery of the unconjugated bile acids, which have higher pKa's than their respective conjugates, is further enhanced by the more rapid mechanism of passive nonionic monomer diffusion. Normally the bile acids present in the jejunal lumen are all conjugated and a significant proportion is made up of trihydroxy bile acid. In contrast, the bile acid pool in the ileum has been qualitatively changed by anaerobes to yield a greater proportion of unconjugated and dihydroxy bile acids. These qualitative differences of the bile acid pool within the jejunum and ileum result in a greater recovery of bile acids from the ileum via passive transport mechanisms.

The ileum is the major site of the reabsorption of bile acids primarily because of the presence of active transport sites exclusively limited to the ileum. Active transport of bile acids is quantitatively the most significant mechanism of bile acid absorption. It is of teleological importance that those bile acids which are absorbed passively in the jejunum at the lowest diffusion rates are the same bile acids which are actively absorbed at the greatest maximal velocities in the ileum. As a result of these regional differences in bile acid absorption, high concentrations of bile acids are achieved in the proximal small intestinal lumen where they are required for micelle formation to take place, yet, in the ileum almost complete recovery of the bile acid pool is accomplished. Thus, the combined effect of these transport processes is to very effectively maintain the enterohepatic circulation of bile acids. The ileum is of primary importance in the quantitative recovery of the bile acid pool.

Following absorption of the bile acids they are bound to albumin and carried in the portal stream to the liver. In the liver a negative feedback mechanism is present that governs bile acid synthesis. This mechanism is controlled by the quantitative recovery of bile acids from the intestine. Normally 3 to 4 grams of bile acids comprise the total pool size. Following secretion into the bile, the bile acid pool is stored in the gallbladder until discharge into the proximal small intestine. The pool cycles through the enterohepatic circulation approximately twice per meal or six times daily. In the course of a 24 hour period, approximately 500 mg. of bile acid are lost in the feces and in the steady state 500 mg. are synthesized to maintain the pool size. Impairment of ileal function will increase the fecal losses of bile acid and result in increased hepatic synthesis.

Vitamin B_{12} Absorption[3]

The major dietary source of vitamin B_{12} is animal protein. In the stomach the peptide linkage to the vitamin is broken and intrinsic factor becomes bound to the B_{12} molecule forming a large molecular complex. Insignificant amounts of B_{12} are absorbed in the jejunum as the B_{12} -IF complex travels through the intestinal lumen. Active transport sites for vitamin B_{12} absorption are present exclusively in the ileum. B_{12} is absorbed in the ileum and in the process of absorption intrinsic factor is split off. Subsequently, the absorbed vitamin is bound to a protein in the portal blood and is delivered into the general circulation for peripheral utilization and storage. Normal absorption of vitamin B_{12} is dependent on an intact ileum. If a significant portion of the terminal ileum is compromised, B_{12} deficiency is inevitable.

Pathophysiology

Impairment of the functional integrity of the ileum will result in decreased absorption of bile salts from the small intestinal lumen and increased concentrations of bile salts in the colon.[4] The decreased absorption will be reflected in the concentration of bile salts in the portal blood which will in turn stimulate bile acid synthesis in the liver. If the capacity of the liver to synthesize bile acids is not exceeded by fecal losses, the bile salt pool will be maintained, but the turnover rate of the pool will be markedly increased and colonic

concentrations elevated. In this situation steatorrhea will be absent owing to the normal pool size, but diarrhea is common as a result of the toxic effects of bile salts entering the colon. Perfusion of human and dog colons with bile salts have been shown to produce inhibition of electrolyte and water absorption from the bowel.[5]

If ileal function has been impaired to an extent where fecal losses of bile salt exceed the maximal capacity of the liver to replenish the losses, the bile salt pool will diminish until a new steady state is reached.[6] If the bile salt pool has decreased to a size insufficient to yield jejunal intraluminal concentrations above the critical micellar concentration, steatorrhea will develop. The steatorrhea is quantitatively greater than that seen in cases with pure bile salt deficiency, e.g., biliary cirrhosis, as a result of the additional loss of the reserve capacity of the ileum to absorb fat.

Vitamin A, D and K are dependent on micelle formation for absorption. If the bile salt pool is significantly decreased, malabsorption of these vitamins develops. Vitamin B_{12} malabsorption will develop with functional loss of greater than three feet of terminal ileum as a result of destruction or absence of the active transport sites.

Causes of Ileal Dysfunction

The most common cause of ileal dysfunction is partial or total ileectomy. In a large county hospital, gunshot wounds account for a significant proportion of the ileectomies performed. Compromised bowel secondary to mechanical obstruction or bowel incarceration is a common basis for resection. Pelvic inflammatory disease, ileal tumors, and stricture, fistula or abscess formation frequently secondary to regional enteritis are also relatively common entities requiring ileectomy.

Ileal bypass for hypercholesterolemia, or as part of a jejunocolic bypass for obesity, will produce ileal dysfunction. Finally, ileal disease per se, as seen in regional enteritis or radiation ileitis, will produce varying degrees of ileal dysfunction. All of these entities have in common a defect in the functional integrity of the ileum.

Clinical Manifestations

The predominant symptomatology of ileal dysfunction is diarrhea and/or steatorrhea, depending on the extent of ileum compromised. Weight loss may be marked and deficiencies of the fat soluble vitamins (A, D & K), calcium and vitamin B_{12} may be clinically apparent. Although the Schilling test may be abnormal, macrocytic anemia may not evolve for several years, depending on the endogenous stores of vitamin B_{12}. Quantitative stool fats generally exceed 25 Gm. per 24 hours if the entire ileum is compromised.

Differential Diagnosis

A history of ileal disease, bypass, or resection in conjunction with steatorrhea and/or diarrhea, and an abnormal Schilling test (with intrinsic factor) is strongly suggestive of the ileal dysfunction syndrome. The major diagnostic problem is in the differentiation between the ileal dysfunction syndrome and the intestinal stasis syndrome. This latter entity also presents as steatorrhea with an abnormal Schilling test. In this syndrome the steatorrhea and vitamin B_{12} malabsorption develop as a result of intestinal stasis giving rise to a luxuriant overgrowth of bacteria in the proximal small bowel lumen.[7] Anaerobic bacteria deconjugate the bile salts reducing the concentration of conjugated bile salts. Micelle formation is impaired and steatorrhea develops. Bacteria also bind vitamin B_{12} and B_{12} - IF competing effectively with the ileum for uptake. Finally, the xylose tolerance test may be abnormal as a result of bacterial utilization of this sugar.[8] X-ray evidence of a blind loop, jejunal diverticulosis, or a stagnant segment of bowel bypassed by an enteroenteric fistula makes one suspect intestinal stasis syndrome. In patients with chronic partial small bowel obstruction secondary to an ileal stricture or adhesions resulting from a previous ileectomy, the differential diagnosis may be difficult. This diagnostic dilemma is resolved by determining the response of abnormalities in the quantitative stool fat, Schilling test, and xylose tolerance test to broad spectrum antibiotic therapy. Tetracycline in doses of 500 mg. q.i.d. is given for three days and will normalize the quantitative stool fat, Schilling test, and xylose tolerance test (if initially abnormal) in the intestinal stasis syndrome. Steatorrhea and B_{12} malabsorption secondary to ileal dysfunction will not improve significantly with antibiotic therapy.

Gallstones

Biliary cholesterol is kept in solution by bile salts and lecithin. If the percentage of either bile salts or lecithin in the bile is significantly reduced without a corresponding rise in the other respective constituent, cholesterol crystals will precipitate out in the bile and predispose to gallstone formation.[9] Significant interruption of the enterohepatic circulation of bile salts will result in a

decrease in the bile salt pool and may alter the biliary ratio of cholesterol to bile salts. The incidence of gallstones in patients with disorders of the terminal ileum is greater than five times the expected incidence in the population at large.[10]

Therapy

There are no available means to correct the physiologic defect seen in the ileal dysfunction syndrome. Therapy is entirely supportive. Patients with massive steatorrhea and malnutrition generally require supplements of medium chain triglyceride.[11] Medium chain fatty acids are relatively soluble in water and do not require a micellar phase for absorption. One ounce of medium chain triglyceride given q.i.d. as the pure oil or incorporated into recipes will provide an additional 1000 calories daily. Aqueous forms of the fat soluble vitamins A, D and K should be given and in many of these patients calcium supplements are also necessary. Serum calciums should be followed to prevent excessive replacement of calcium and vitamin D. If diarrhea is a prominent symptom and fails to adequately respond to diphenoxylate (Lomotil), a trial of cholestyramine is warranted. Cholestyramine is an anionic exchange resin that avidly binds bile salts within the intestinal lumen. In patients with less than 100 cm. of ileum resected favorable results have been achieved presumably as a result of the prevention of the inhibitory effect of bile salts on water and electrolyte absorption in the colon.[12]

If significant steatorrhea coexists with the diarrhea, it is frequently necessary to put the patient on a low dietary fat diet replacing caloric needs with medium chain triglycerides. This dietary modification will reduce steatorrhea and in some patients will facilitate the treatment of the diarrhea with cholestyramine. Finally, in all patients with an abnormal Schilling test, parenteral B_{12} replacements will be required for life.

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Letters

Dear Dr. Collins:

The days are swiftly flying by and plans are being made for the FMA Convention in May 1971.

One of the anticipated events of our meeting is the Benefit Art Show sponsored by our auxiliary. This Fifth Annual Art Show will again feature works by physicians, their wives and children.

The Journal will again present the Editor's Award and the winning entry will be featured on the cover of a future issue of the Journal.

Last year there were 41 entries, 5 winners and $410 was contributed to AMA-ERF. This year the St. Augustine Medical Museum will be the recipient of the profits derived from the show.

Artistic endeavor of all kinds is being encouraged. The Art Show committee and judges eagerly await all entries. It is a rare treat to see the many-faceted artistic talents displayed by medical families throughout the state.

So, get out the easels, acrylics, instruments, clay or what have you. This is your show, presented by your members, for the benefit of your medical museum.

With great anticipation we await your works of art.

Mrs. Arnold J. Spanjers, President
Women's Auxiliary to FMA

Dear Clyde:

Things that one becomes accustomed to are often taken for granted, especially when they are good. It occurred to me after reading the January issue of the Journal that this has been the case with me insofar as the Journal is concerned.

I think that you as editor have made a very definite mark on the Journal this past year and it has been a good one. I have enjoyed reading your editorials and comments. It has never been easy for me to come up, on demand, with a few well-chosen words of wisdom; therefore, I have an appreciation for one who can, month in and month out, come up with something worth reading.

I just wanted to tell you that I think you are doing a fine job for us and I appreciate your efforts.

Bob
(Robert E. Zellner, M.D.)
Orlando

The clouds that gather round the setting sun
Do take a sober coloring from an eye
That hath kept watch o'er man's mortality;
Another race hath been, and other palms are won.

Thanks to the human heart by which we live,
Thanks to its tenderness, its joys, and fears,
To me the meanest flower that blows can give
Thoughts that do often lie too deep for tears.

William Wordsworth (1770-1850)



CALORIES / 7 oz. Serving*

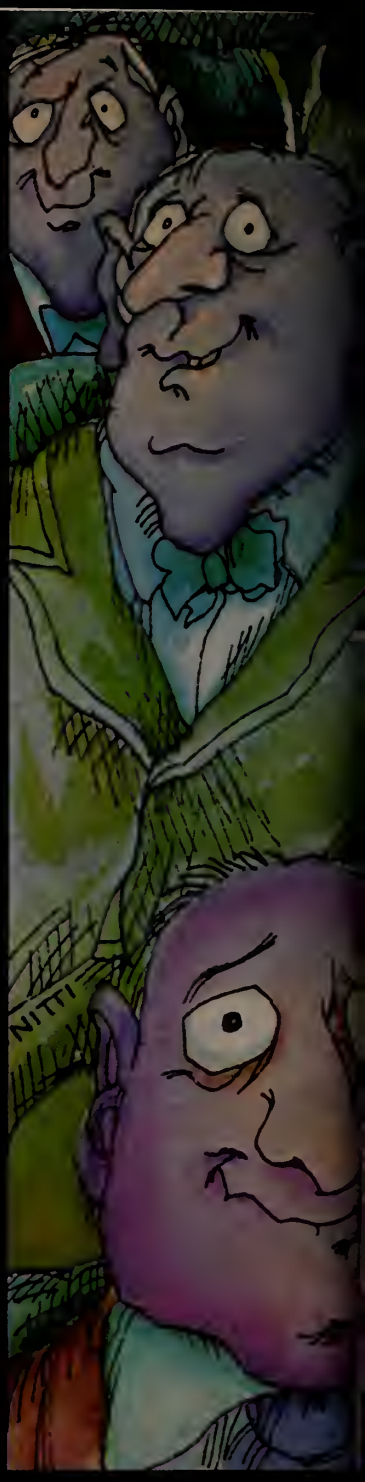
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Chicken with Rice	43	Cream of Asparagus	70
Chicken Gumbo	48	Cream of Chicken	76
Chicken Noodle	54	Cream of Mushroom	115
Cream of Potato	58	Green Pea	116
Chicken Vegetable	60	Cream of Shrimp (Frozen)	132
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kept out of reach of children. Signs of accidental overdosage may include severe respiratory depression, flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia; continuous observation is necessary. The subtherapeutic amount of atropine sulfate is added to discourage deliberate overdosage.

Adverse Reactions: Side effects reported with Lomotil therapy include nausea, sedation, dizziness, vomiting, pruritus, restlessness, abdominal discomfort, headache, angioneurotic edema, giant urticaria, lethargy, anorexia, numbness of the extremities, atropine effects, swelling of the gums, euphoria, depression and malaise.

Overdosage: The medication should be kept out of reach of children since accidental overdosage may cause severe, even fatal, respiratory depression.

Dosage: The recommended initial daily dosages, given in divided doses until diarrhea is controlled, are as follows:

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*Based on 4 cc. per teaspoonful.

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the mother and child.
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benefits against the potential hazards
Precautions: It has been reported that prolonged or excessive use of phenacetin may result in nephrotoxicity. Caution, therefore, shoul
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may include tachycardia, palpitation, urinary hesitancy or retention, dry mouth, blurred vision, dilatation of the pupil, increased intraoc
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Revised Jan. 1968

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Editorial

F. R. M. P.

Beset by the lack of understanding on the part of the private practitioner, false accusations from the lay press, the aggressiveness of our medical schools in obtaining their share of available federal largess, personality conflicts between full time and volunteer members, and a paucity of tangible results, the Florida Regional Medical Program is entering its third year.

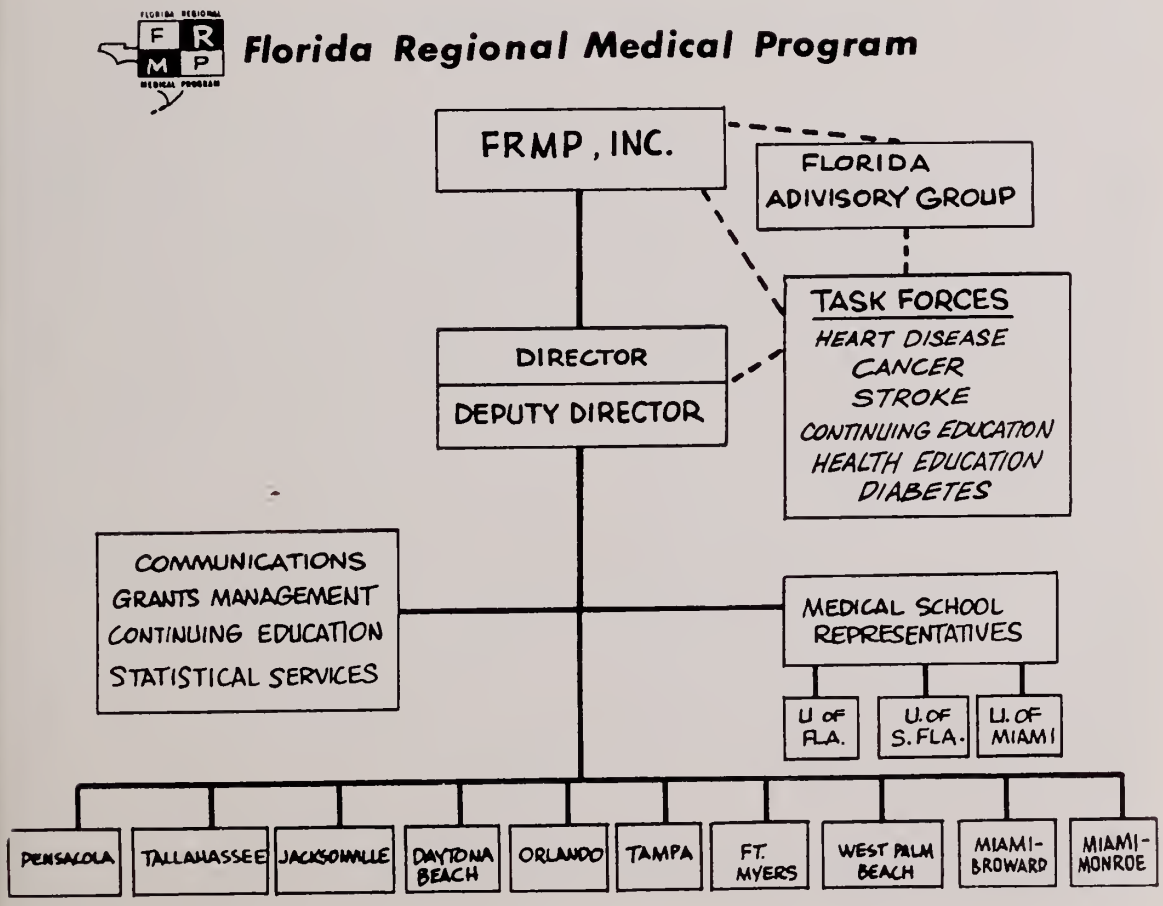
Following the appointment by President Johnson in 1965 of a Commission on Heart Disease, Cancer and Stroke, legislation was drafted drastically different from the recommendations and a sum of money was appropriated. The aims of the legislation were to provide a unique system of care for patients with heart disease, cancer and stroke and related disorders by the support of educational programs, with an emphasis on narrowing the time lag between new treatment discoveries and their use by practicing physicians and other health care professionals. Grant funds, provided for planning and operational phases, were not intended to be a method of paying for indigent medical care nor designed specifically to build hospitals, laboratories or medical schools but to preserve the traditional relationship between the patient and his physician. Extraordinarily difficult problems since have arisen due in part to the vagueness of the legislation as it was written and to the differences of opinion in the people interpreting the law as to how to accomplish its objectives. While the worse planning is that born of desperation, money having been accepted, ideas for specific medical care must be produced; but before being carried away with commitments on planning, we should take a hard look at the price as well as the potential advantages. Because of the short time that our program has been operational, it is difficult to objectively evaluate the results obtained for we cannot assume failure or success simply because some of our ideas have been approved in Washington and federal funds have been received. Yet because of the size of the sums involved, we must weigh the amount of money appropriated against the potential advantages to patients and private practitioners.

No one is against improving health services but is this the best way to do it? The history of our nation is filled with the cadaverous remains of federal bureaucracies based on idealistic methods of solving urgent social problems which failed as expensive boondoggles because in practice the coordinator, the solution and the local parts of the problem did not fit into the federally-proposed mold. In Florida, should any physician conceive of an idea which might improve patient care in one of the RMP categories, a one page summary of the problem and the plan to a district representative will obtain help in writing up this request for a grant. The application then goes to the appropriate RMP task force, made up of volunteer physicians, laymen, members of the teaching profession and hospital officials, and if approved, it then is presented before the Advisory Group. Approved there, it is sent to Washington where it must stand a final test for rejection or approval.

Receiving its first planning grant in February 1968, the total budget for FRMP, Inc. from March 1, 1970 to February 28, 1971, including operation grants, is $1,629,948. A central office under Dr. Granville Larimore as director of a full time staff in Tampa gives coordination, continuity and effectiveness to the entire organization. A

board of directors, responsible for the overall operation of the program is composed of four appointees from the FMA, one from each of the three medical schools, the Florida Heart Association, Florida Hospital Association, Florida chapter of the American Cancer Society, the Board of Regents, the Florida Medical Foundation and the public at large. Wherein, initially, the Regional Medical Program divided Florida into three areas, each centered about a medical school, last year a sub-regionalization pattern was proposed, giving greater emphasis to community involvement through the establishment of ten district offices. Located to coincide with centers of population and patient flow, each is manned by a physician part time, who is selected by the doctors in the area. The functions of the district offices are to bring continuing education to the local level, provide a framework for advisory committees to reflect community needs and priorities, to assist community hospitals plan for continuing education, and to assume the responsibility of developing operational projects. Changes also were made in an *Advisory Group* (now the policy making body) and an *Advisory Council* (now the board of directors) to attain roles the original directives had envisioned, hopefully shedding many of its frustrations rooted in the earlier development of FRMP. Three task forces initially were developed representing heart disease, cancer and stroke and a fourth and fifth formed, to include continuing education and health education. Diabetes was included to make a sixth task force. Originally the task forces were designed with their main function being to review applications for project grants but this method became cumbersome and unwieldy. Plans now call for reducing membership in task forces to workable levels supplemented by a body of consultants. A new national RMP policy change is that state programs can authorize available funds for approved projects.

During 1970, 14 proposals reached the stage of formal projects and of these, ten were approved by the task forces and of these the advisory group approved eight. A hypertension screening program is almost completed while still in progress are RMP projects for computerization of EKGs and coronary care units. Beginning last November,



RMP initiated a survey of medical technologists, a study of manpower utilization and the employment of various types of health workers. This included physician's assistants and their potential for use by the physicians. A survey to determine the extent of the treatment of cancer by chemotherapy was conducted. Surveying the use of radiotherapy by Florida physicians last year provided a statewide profile of facilities and equipment available. Continuing education in coronary care for nurses has been somewhat disappointing in that applicants have not developed as was anticipated. Recruiting difficulties and the unwillingness of hospital administrators to allow nurses a leave of absence for four weeks of training has hurt the program. RMP funds pay approximately half of the cost of the program while the other half is supplied by the hospital or some other community source. Programs for physician postgraduate education compete with the many courses already in existence but have the added incentive of being able to pay per diem costs to reimburse the private practitioner for time lost from his office.

Finally, in spite of confusion over goals of the program itself, in spite of not having reached the average practitioner, yet, not condoning the high administrative costs and seeing no valid arguments on any conflicts of interest, at a meeting last month, the board of directors of FRMP reaffirmed their belief in the program and their confidence in its officers by re-electing Drs. Phil Hampton and Ashbel Williams as chairman and vice chairman. Mr. Harold Parham remained an officer by moving from secretary to treasurer and Dr. Jim Hirshfield was approved to take the position of secretary.

C.M.C.

Should We Accept Direct Payment By A Third Party?

Frederick C. Andrews, M.D.

As physicians, our concern is what is best for our patients, our families, and ourselves. This concern is more eminent than it has ever been before because we are confronted, not with the spectre of third party medicine, but the real thing. James D. Knebel, Assistant Executive Vice President of the National Association of Blue Shield Plans, speaking before the Senate Finance Committee hearings September 23, 1970, stated: "If true reform is to come in the delivery of health care, it can best be achieved by allowing individuals to exercise their choice." This statement applies not only to the patient, but to the physician. Quality care provided by the physician requires the need of freedom of choice as to how he will render or give his services, and how he will be compensated for that service. To envision all physicians in our society as salaried, dependent on the third party's benevolence, is horrendous; as this could only lead to mediocrity, lack of incentive, and eventually, thin the ranks of the physicians. Each physician should have the prerogative of deciding how he should be compensated for his services and by whom he should be compensated. The patient has no confusion as to his financial responsibilities when he is responsible to the physician for his services. When the responsibility of compensation is shifted to a third party, whether private or government, there arises the need of the third party for stabilization of cost through fee control. They need to establish methods of disbursement of funds, and standardization of acceptable procedures. This attitude of the third party leads to more problems for the physician, due to direct and indirect intervention, in the patient care. The patient has little idea of what his responsibility is to the physician.

This paper will discuss some of the pros and cons in accepting assignments from the third party. Do good physicians make contracts with a third party to relieve their patients of the financial responsibility of their care and accept the wages or fees offered by the third party, or do they contract with their patients individually for the cost of services rendered? Obviously, I am discussing

Editor's Note: The Board of Governors in its meeting on March 22, 1970 passed the following motion: "To request the Editor to obtain an article on the pros and cons of assignment of benefits from an appropriate physician for the Journal, and that a general practitioner be consulted for the article."

Medicare, Medicaid, and Workmen's Compensation and the acceptance of these agencies as sole purchasers of medical care for the patient. Our society developed out of a search for freedoms. Individual freedoms have allowed development of those thirteen colonies into a wonderful nation. The most wonderful aspect of our society is that with initiative and motivation one may improve his environment. However, at times, due to the magnitude of the problems in relationship to an individual's ability, those factors of motivation and initiative may be suppressed or even nonexistent. When suppression of initiative and motivation occurs to the individual, he is less able to provide for himself or his family. Society, at this time, has a responsibility to assist the burdened individual in his day of poor social health. The social assistance to the individual who is unable to provide for himself must be furnished by society in such a manner as to stimulate him to self production, and yet see that the individual obtains the necessities of life within his capabilities and needs. Society has also a responsibility to the agency which assists the individual to obtain these needs and to see that the agency has the powers to encourage these individuals to become properly motivated and utilize their abilities to obtain their personal needs. Society is not obligated to provide the necessities, but rather to help the individual obtain them. The medical needs of our indigent population are no different from the rest of the population. Within the indigent group there is an increased number of individuals having multiple problems, low motivation, usually loss of initiative, marked dependency, and retarded abilities. With these concepts in mind, the problem of acceptance of assignments for payment of physicians' services by a third party, or the rejection of assignments for payment of physicians' services by a third party may be considered.

The acceptance of assignments has admirable features. In accepting assignments, the physician agrees, either in whole or in part, to receive his fee directly from the insuring agent with certain stipulations as to amount of fee to be charged. Nowhere under our present system does he negotiate these fees with the paying agent. The funds paid for his services are usually established, either arbitrarily, or based upon actual computerized information establishing norms for the individual geographic areas of comparison of fees for various procedures. This is very good for the payer, but fails to consider the costs of the provider. Under the Medicare program, the physicians' usual and customary fee is paid, provided it falls below, or at the level of acceptable fees or reasonable fees established by the insuring agent, which at the present time is 50% for Medicare. These schedules have a habit of being fixed, not allowing for the variables in medical costs and treating medicine as a commodity. Medicine is still an art which is dependent upon the physician's judgment, knowledge of facts regarding the needs of the patient, and the prospective therapy. How can anyone establish levels of compensation for an individual variable such as medicine on large geographical areas without consideration of individual variables? When one accepts assignments, there are many advantages: (1) Assurance of payment as determined by the insuring agent. (2) There are no problems of the patient having to worry about the payment, other than that portion of the fee above the allowed charge or uncovered charges for services rendered. (3) Systemization, or the establishment of an orderly manner of billing and collecting fees. It is easier to file with one agency, in a regular manner, and to be paid by a single agency, than bill several hundred monthly and collect individually. (4) This manner of payment is an acceptable procedure for the patient. These are the factors one must consider when accepting assignment of payment for his service, or in weighing the possibility of accepting assignments.

When the physician does not accept assignment, the following must be considered: (1) The patient is responsible for his entire bill. The physician may assist the patient in collecting from a third party, but the patient pays the physician for the services which he receives. The patient, as an individual, is responsible for his bill. (2) The patient is aware of the cost of service that he receives. (3) The patient is directly concerned with the cost. (4) The patient has the ability of maintaining a better relationship of cost and payment than when the physician accepts assignment. (5) The patient-physician relationship remains intact. (6) The physician remains responsible to the patient and does not look to the third party for payment or compensation, avoiding adjusting the quality of care for economy of care. (7) The physician is not caught in the middle as a provider as he would be if he were accepting assignments. (8) The fees charged are geared to the patient's ability to pay. This prevents the arbitrary reduction of fees across the board as has been done recently under Medicare. The third party arrangement is not a contract. It is a one-sided,

arbitrary assignment. When the physician does not accept assignment, he is able to adjust to the ever increasing cost of medical care and is not caught between the cost of delivery of care and the arbitrary compensation to be paid by the insuring agent. The cost of medical care at present is growing at a much greater rate than other services in our society. This rise in cost is due in part to previous suppression of salaries of allied personnel. (9) The patient benefits through his ability to see the true cost of medicine, which helps to perpetuate the individual freedom and enterprise. (10) Patients maintain their self respect and initiative. Medicine is still not a commodity as some would have us believe. Only the physician himself knows the scope of the office he wishes to maintain. He alone knows what he expects to receive for his services. He alone knows the time that he wishes to render to his practice. Any other action or determination of these facts of quality care will negate from the quality of care he can render. Arbitrary acts, which detract from the physician's individuality, will eventually turn young people away from medicine and from becoming physicians. It is essential that the physician maintain his independence and his freedom of action, in order that he may render his patients the best quality health care.

This article may seem a bit slanted toward nonacceptance of assignment, but this is best for medicine. Physicians have the responsibility of seeing that their patients have the privilege of freedom of choice, not only of their physicians, but the scope of care they will receive. With the freedom of choice comes the responsibility of physician and patient to individually contract for their service. The physician should assist the patient in collecting from the third party; however, when a physician takes a direct payment from the third party, he looks to that party for levels of care he will provide and he may find that there will be some degeneration of the quality of medical care he would otherwise render.

▶Dr. Andrews, Clinic Building, Mount Dora 32757.

Ritual Execution

Despite abolition of the death penalty, several innocent persons are executed in Hawaii each year. The site of these executions is rather rigidly delineated, being immediately adjacent to a body of water such as a beach, stream, or swimming pool. The victim dives into the water, hits his head against the bottom, sustains a cervical fracture, and floats unconscious to the surface. Well-meaning onlookers rush to the rescue, quickly dragging and carrying him from a watery grave. Unfortunately, they almost invariably forget to support his head, which, acutely hyperextended and rolling from side to side, effectively transects the spinal cord.

Paradoxically, the unfortunate victim is safest while floating in the water, which acts as a total body splint and effectively prevents excessive movements of the head on the trunk. Ideally, after insuring an adequate airway, he should be left in the water until a rigid body support (a surfboard is ideal) can be obtained and slid under the body. He can then be lifted in toto from the water and transported, still lying on the board, to the hospital.

We teach rescue workers on land, to "splint them where they lie." Let's spread the word that for water injuries it's "support them where they float!"

From the Sept. 1970 issue of the Maryland State Medical Journal.



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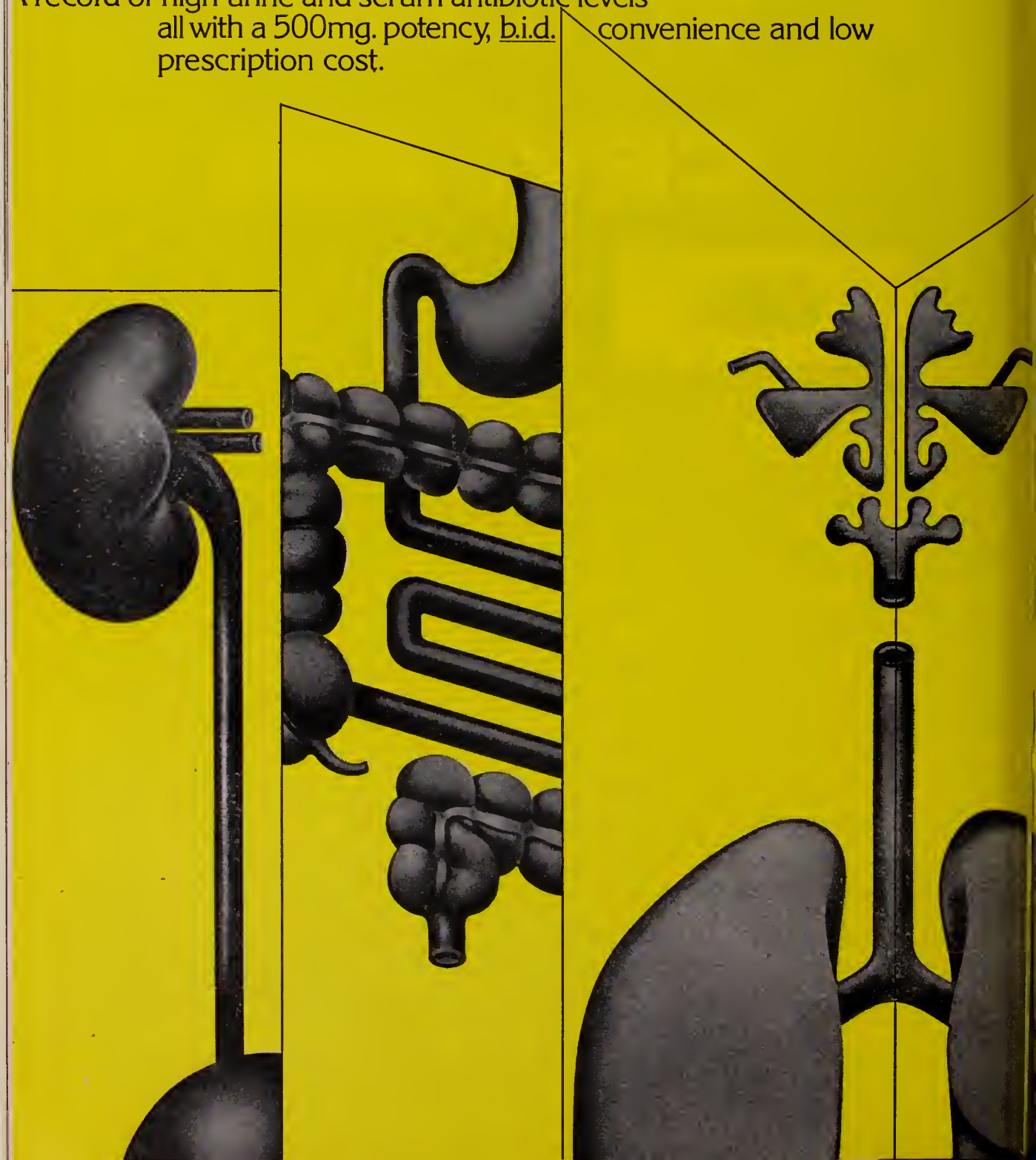
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Indications: Infections of respiratory, gastrointestinal and genitourinary tracts and skin and soft tissues due to tetracycline-sensitive organisms. In staphylococcal infections, indicated surgical procedures should be performed.

Contraindications: Hypersensitivity to tetracyclines.

Warnings: Photodynamic reactions have been produced by tetracyclines. Natural and artificial sunlight should be avoided during therapy. Stop treatment if skin discomfort occurs. With renal impairment, systemic accumulation and hepatotoxicity may occur. In this situation, lower doses should be used and serum estimations may be necessary during prolonged therapy. Tooth staining and enamel hypoplasia may be induced during tooth development (last trimester of pregnancy, neonatal period and childhood).

Precautions: Mycotic or bacterial superinfections may occur. Infants may develop increased intracranial pressure with bulging fontanels. Cases of gonorrhea with a suspected primary lesion of syphilis should have darkfield examinations before receiving treatment. In all other cases where concomitant syphilis is suspected, monthly serological tests should be performed for a minimum of 4 months.

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ORGANIZATION

Committee on Rural Health

Arthur M. Riley, D.D.S., was elected Chairman of the Florida Committee on Rural Health during a meeting held in Ft. Myers on December 10.

Dr. Riley, an appointee of the Florida Dental Association, succeeds Joe N. Busby, Ph.D., representative of the Florida Cooperative Extension Service. Lawrence D. Hughes, M.D., representative of FMA on the committee, was named Vice Chairman.

The committee heard a presentation by a representative of the Southwest Florida Self-Help Housing, Inc., Mr. Nick C. Arlington, describe how the corporation is an administrative program to provide inexpensive, adequate housing for migrant farm workers.

According to Mr. Arlington the experimental program is being carried out in Lee and Collier counties in Florida and in San Joaquin Valley in California. It was brought out that a house appraised at $14,000 to $15,000 can be built for approximately $9,000. The corporation is trying to encourage the Farmers Home Administration to make loans to migrants for such homes.

At the end of the meeting members of the committee were taken on a tour of the Self-Help housing areas in Lee County.

Subcommittee on Venomous Snake Bite

The Subcommittee on Venomous Snake Bite met in Orlando on December 6 with the Chairman, Dr. Carl E. Andrews of West Palm Beach, presiding.

The purpose of the meeting was to design a research grant application and protocol for a study of human clinical pathology induced by venomous snake bite.

The committee planned to apply to the Florida Medical Foundation for a grant at the Foundation's January meeting.

The committee discussed the blood requirements for the study. It was decided that blood samples should be drawn prior to the administration of antivenin, 24 hours following therapy and just prior to the patient's discharge from the hospital.

The study would involve up to 25 patients.

Council on Health of the Aging

James E. Fulghum, M.D., of Jacksonville has been elected chairman of the Florida Joint Council on Health of the Aging for 1971.

The election of Dr. Fulghum to succeed Mr. Franklin S. Cuyler of Lake Wales came at a meeting of the Council in Jacksonville on December 1. Dr. Fulghum is Chief of the Bureau of Adult Health and Chronic Diseases of the Florida Division of Health.

Several reports were presented to the Council including one on Medicare by Mr. Marcelle Purcell of the Bureau of Health Insurance, Social Security Regional Office in Atlanta. Mr. Purcell said that during 1969 Medicare claims totaling $289,000,000 were paid out in the State of Florida and that 880,000 residents of the state were covered in parts A and B of the program.

Mr. Walter Klein of the Florida Division of Family Services described the status of Florida's Medicaid program. He estimated that at least $8,000,000 in additional state funds will be needed to maintain the program on its present level in order to cope with a $20,000,000 deficit during the current fiscal year.

The Council was organized about 10 years ago with FMA playing a leading role.

When things go wrong, as they sometimes will,
When the road you're trudging seems all up hill,
When the funds are low and the debts are high
And you want to smile, but you have to sigh,
When care is pressing you down a bit,
Rest if you must, but don't you quit.

Anonymous

The girth control pill



Tepanil® Ten-tab®

(continuous release form)

(diethylpropion hydrochloride, N.F.)

works on the appetite not on the 'nerves'

When girth gets out of control, TEPANIL can provide sound support for the weight control program you recommend. TEPANIL reduces the appetite—patients enjoy food but eat less. Weight loss is significant—gradual—yet there is a relatively low incidence of CNS stimulation.

Contraindications: Concurrently with MAO inhibitors, in patients hypersensitive to this drug; in emotionally unstable patients susceptible to drug abuse.

Warning: Although generally safer than the amphetamines, use with great caution in patients with severe hypertension or severe cardiovascular disease. Do not use during first trimester of pregnancy unless potential benefits outweigh potential risks.

Adverse Reactions: Rarely severe enough to require discontinuation of therapy, unpleasant symptoms with diethylpropion hydrochloride have been reported to occur in relatively low incidence. As is characteristic of sympathomimetic agents, it may occasionally cause *CNS effects* such as insomnia, nervousness, dizziness, anxiety, and jitteriness. In contrast, CNS depression has been reported. In a few epileptics an increase in convulsive episodes has been reported. *Sympathomimetic cardiovascular effects* reported include ones such as tachycardia, precordial pain arrhythmia, palpitation, and increased blood pressure. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride; this was an isolated experience, which has not been reported by others. *Allergic phenomena* reported include such conditions as rash urticaria, ecchymosis, and erythema. *Gastrointestinal effects* such as diarrhea constipation, nausea, vomiting, and abdominal discomfort have been reported. Specific reports on the hematopoietic system include two each of bone marrow depression, agranulocytosis, and leukopenia. A variety of miscellaneous adverse reactions have been reported by physicians. These include complaints such as dry mouth, headache, dyspnea, menstrual upset, hair loss, muscle pain, decreased libido, dysuria, and polyuria.

Convenience of two dosage forms: TEPANIL Ten-tab tablets: One 75 mg. tablet daily, swallowed whole, in midmorning (10 a.m.); TEPANIL: One 25 mg. tablet three times daily, one hour before meals. If desired, an additional tablet may be given in midevening to overcome night hunger. Use in children under 12 years of age is not recommended.

T-103 / 2/71 / U.S. PATENT NO. 3,001,910

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Painful night leg cramps...

unwelcome bedfellow for any patient– including those with arthritis, diabetes or PVD

One thing patients can sleep without, particularly patients with chronic disease conditions such as arthritis, diabetes or PVD, is painful night leg cramps. Although seldom the presenting complaint, night leg cramps can tie your patients up in painful knots. Now, just one tablet of QUINAMM at bedtime can usually bring an end to shattered sleep and needless suffering. Your patients will sleep restfully—gratefully—with QUINAMM, specific therapy to prevent painful night leg cramps.

Prescribing Informotion—Composition: Each white, beveled, compressed tablet contains: Quinine sulfate, 260 mg., Aminophylline, 195 mg. **Indicotions:** For the prevention and treatment of nocturnal and recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis and static foot deformities. **Contraindications:** QUINAMM is contraindicated in pregnancy because of its quinine content. **Precoutions/Adverse Reoctions:** Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastraintestinal disturbance. Discontinue use if ringing in the ears, deafness, skin rash, or visual disturbances occur. **Dosoge:** One tablet upon retiring. Where necessary, dosage may be increased to one tablet following the evening meal and one tablet upon retiring. **Supplied:** Bottles of 100 and 500 tablets.

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Quinamm™
(quinine sulfate 260 mg., aminophylline 195 mg.)

Specific therapy for night leg cramps

in cardiac edema

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Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

gets the water out

spares the potassium

Before prescribing, see complete prescribing information in SK&F literature or *PDR*.

Indications: Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome, late pregnancy; also steroid-induced and idiopathic edema, and edema resistant to other diuretic therapy. 'Dyazide' is also indicated in the treatment of mild to moderate hypertension.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: **Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired.** Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., certain elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—they can both cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

Supplied: Bottles of 100 capsules.

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AMA Adds New Exhibit on Drug Abuse Control

A timely new exhibit, "Drugs—Are You Facing the Decision?," is now available for public showings by medical societies and other organizations involved in drug abuse control programs.

Its message is addressed to young people and their parents. The display features concise copy on marihuana, stimulants and depressants, youth-oriented illustrations, a revolving "fact" drum and a taped message on two earphones for "viewer involvement."

The exhibit is 10 ft. in length, self-contained and illuminated; it weighs 400 lbs. It may be borrowed from the AMA Exhibit Section without charge, except for round-trip transportation costs. The Section asks that reservations be placed at least three months in advance.

Announcing the Thirty-Fourth Annual Meeting of
THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY
Conference Headquarters — The Roosevelt Hotel
March 8, 9, 10, 11, 1971

GUEST SPEAKERS

Chas. Ronald Stephen, M.D., Dallas, Tex.
Anesthesiology
Alejandro F. Castro, M.D., Washington, D. C.
Colon and Rectal Surgery
Alexander A. Fisher, M.D., Woodside, L.I., N.Y.
Dermatology
Thomas P. Almy, M.D., Hanover, N. H.
Gastroenterology
Jack H. Hall, M.D., Indianapolis, Ind.
General Practice
Denis Cavanagh, M.D., St. Louis, Mo.
Gynecology
John T. Galambos, M.D., Atlanta, Ga.
Internal Medicine
Roger F. Palmer, M.D., Miami, Fla.
Internal Medicine
Nathan S. Schlezinger, M.D., Philadelphia, Pa.
Neurology
Ernest W. Page, M.D., San Francisco, Calif.
Obstetrics
Henry F. Allen, M.D., Boston, Mass.
Ophthalmology
Phillip L. Day, M.D., San Antonio, Tex.
Orthopedic Surgery
Edley H. Jones, M.D., Vicksburg, Miss.
Otolaryngology
John A. Shively, M.D., Columbia, Mo.
Pathology
Max D. Cooper, M.D., Birmingham, Ala.
Pediatrics
William B. Seaman, M.D., New York, N. Y.
Radiology
Robert S. Litwak, M.D., New York, N. Y.
Surgery
Edward R. Woodward, M.D., Gainesville, Fla.
Surgery
James F. Glenn, M.D., Durham, N. C.
Urology

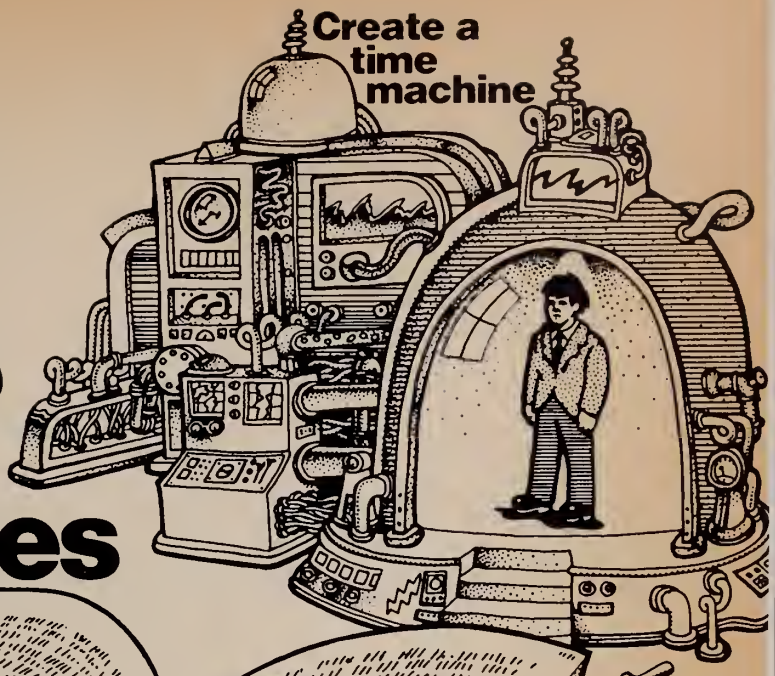
Lectures, clinicopathologic conference, round-table luncheons, medical motion pictures, technical exhibits, and entertainment for visiting wives.

This program is acceptable for twenty-two (22) prescribed hours and eight (8) elective hours by the American Academy of General Practice.

(All-inclusive registration fee — $35.00)

For information concerning the Assembly meeting write Secretary, The New Orleans Graduate Medical Assembly, Room 1538, 1430 Tulane Avenue, New Orleans, Louisiana 70112.

What to do until suppositories work:



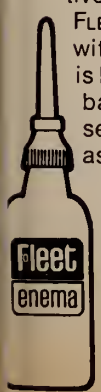


Actually, on the average, evacuant suppositories take about an hour to work.[1-3] Sometimes two.[4] Sometimes more.[3] Also, suppositories can be ineffective in up to 38% of patients,[5] and not infrequently produce smarting, burning and tenesmus.[6]

Alternative to the long unpleasant wait: FLEET® ENEMA.

FLEET ENEMA works within 2 to 5 minutes without pain or spasm. FLEET ENEMA induces a physiological pattern of evacuation, unlike purgatives and laxatives that may liquefy the stool. FLEET ENEMA avoids the irritation common with soapsuds enema. And FLEET ENEMA is leakproof: a rubber diaphragm at the base of the prelubricated tube prevents seepage and controls the rate of flow, assuring comfortable administration.

FLEET ENEMA. Regular and pediatric. Both completely disposable—like suppositories, only better. Much better.



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Warning: Frequent or prolonged use of enemas may result in dependence. Take only when needed or when prescribed by a physician. Do not use when nausea, vomiting or abdominal pain is present.
Caution: Do not administer to children under two years of age unless directed by a physician.

References: 1. Blumberg, N.: Med Times 91:45, Jan., 1963. 2. Sweeney, W. J., III: Amer J Obstet Gynec 85:908, Apr. 1, 1963. 3. Weinsaft, P.: J Amer Geriat Soc 12:295, Mar., 1964. 4. Baydoun, A. B.: Amer J Obstet Gynec 85:905, Apr. 1, 1963. 5. Feder, I. A., Flores, A. and Weiss, J.: Amer J Gastroent 33:366, Mar., 1960. 6. Smith, J. J. and Schwartz, E. D.: Western J Surg 72:177, May-June, 1964.

Efudex®

(fluorouracil)
cream/solution

In the treatment of solar/actinic keratoses-
An alternative to cold, fire and steel

2/23/68
Before treatment with 5% 5-FU cream. Patient R. G., 78 years old, shows extensive skin changes due to weathering and severe solar/actinic keratoses.

3/26/68
Following one month of therapy. Intense erythematous reaction is seen at sites of keratoses. Normal skin has not reacted. Some areas which had reacted initially have undergone healing despite continued topical application of 5% 5-FU.

6/11/68
Ten weeks after discontinuance of therapy. All areas have healed complete Residual mild erythema remains in som areas. This patient also had seborrheic keratoses which, as expected, have not reacted. There is no evidence of residua lesions or recurrences.



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An alternative to conventional therapy

Efudex (fluorouracil) offers the physician a topical alternative to cryosurgery, electrodesiccation and cold-knife surgery in the treatment of solar/actinic keratoses. It is effective, comparatively inexpensive and especially well suited for treatment of these multiple lesions. Important, too, is the highly desirable cosmetic result. Clinical experience demonstrates that treatment with Efudex results in an extremely low incidence of scarring.*

Highly effective

In clinical trials, depending on the dosage form and strength used, complete involution occurred in 77 to 88 per cent of lesions following treatment. The rate of recurrence was low, ranging from 1.7 to 5.6 per cent up to a year after completion of therapy. When new lesions appeared, repeated courses of Efudex therapy proved effective.*

Predictable therapeutic response

Two to four weeks constitutes a typical course of Efudex therapy. The response is usually characteristic and predictable. After three or four days of treatment, erythema begins to appear in the area of keratoses. This is followed by an intense inflammatory response, scaling and occasionally moderate tenderness or pain. The height of the inflammatory reaction generally occurs two weeks after the start of therapy, and then begins to subside as treatment is stopped. Within two weeks of discontinuing medication, the inflammation is usually gone. A mild erythema may remain for two or three months before gradually receding. Since this response is so predictable, lesions which do not respond should be biopsied.

Two strengths—two dosage forms

Efudex is available as a 2% or 5% solution or as a 5% cream. It is applied twice daily by the patient with a nonmetal applicator or suitable glove.

Before prescribing Efudex, however, two important considerations: First, please consult the complete prescribing information for precautions, warnings and adverse reactions. Second, advise the patient that treated lesions should respond with the characteristic but transient inflammation. A positive sign that Efudex is working for them.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Efudex Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)-aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Efudex Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing-cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).



new Efudex® (fluorouracil) cream/solution

*Data on file, Hoffmann - La Roche Inc., Nutley, New Jersey.

General News

Escambia County Medical Society Honored

A component of the Florida Medical Association has been honored by the American Medical Association for increasing the number of its members qualifying for the AMA Physicians' Recognition Award.

Philip Phillips, M.D., of Pensacola received a letter of commendation for the Escambia County Medical Society during the opening session of the House of Delegates at the AMA Clinical Convention on Sunday, November 29.

The letter was presented to Escambia County over the signature of Donald W. Petit, M.D., Chairman of the Committee on Continuing Medical Education of the AMA Board of Trustees.

"The initiative and innovation of these efforts by the Escambia County Medical Society are unique and have contributed substantially to increasing the level of continuing medical education among Society members," Doctor Petit wrote. He cited Escambia County's efforts as "an outstanding example of how practicing physicians, through their local medical society, can improve the quality of patient care through education."

Several FMA officers were present when the commendation was presented to the Escambia County Society.

The AMA developed the Physicians' Recognition Award a fews years ago in order to encourage practicing physicians to participate in postgraduate education.



Philip Phillips, M.D., of Pensacola (center), President of the Escambia County Medical Society receives for the society a citation from the American Medical Association during the AMA Clinical Convention in Boston on November 29. The Escambia County Society was cited for its efforts in the area of Continuing Medical Education. At left is Edward R. Annis, M.D., of Miami, a Past-President of the AMA. At right is James Z. Appel, M.D., of Lancaster, Pennsylvania, also an AMA Past President.

Dr. Coleman Retires from AMPAC Board

Frank C. Coleman, M.D., of Tampa retired from the Board of Directors of the American Medical Political Action Committee on December 31 after 10 years of service. The Tampa pathologist had served for a time as Chairman of the AMPAC Board.

Dr. Coleman is a member of the Florida Medical Association and the American Medical Association. He has been a member of the AMA Council on Legislative Activities; and in 1960-1961 he was president of the College of American Pathologists.

Recruitment Program

A task force of Jacksonville's Mayor for physician recruitment shortly hopes to attract approximately 150 new physicians for practice in the Jacksonville-Duval County area.

Prime target for the recruitment effort was a group of 1,400 or more physicians who were scheduled to take the Florida licensing examination in Jacksonville, January 17-19.

James W. Walker, M.D., Immediate Past President of the Duval County Medical Society, is the project director. Dr. Walker noted that Duval County has a shortage in some fields of practice.

The recruitment program includes a reception and informal talks on January 17 and a tour of the city arranged for the physicians' wives by the Woman's Auxiliary to the Duval County Medical Society.

Fellowship Requirements Liberalized

The American College of Preventive Medicine has liberalized its Fellowship requirements.

Until recently the Fellowship was limited to physicians certified by the American Board of Preventive Medicine. Under the new policy, physicians engaged full time in practice, teaching or research in the field of preventive medicine who are certified in other specialties may be admitted to the college.

The college adopted the change in fellowship requirements during its annual meeting in Houston on October 29.

AMA Appointments and Reappointments

Several Florida physicians have been appointed or reappointed to the various councils or committees of the American Medical Association. Florida physicians on the appointment list include the following: Donn LeRoy Smith, M.D., of Tampa, reappointed to the Council on Drugs; Granville W. Larimore, M.D., of Tampa, reappointed to the Council on Environmental and Public Health; Francis C. Coleman, M.D., of Tampa, reappointed to the Council on Health Manpower; H. Phillip Hampton, M.D., of Tampa, reappointed to Council on Legislation; Mason Romaine, III, M.D., of Jacksonville, reappointed to Council on Voluntary Health Agencies; Robert Williams, M.D., of Gainesville, whose appointment to the Committee on Continuing Professional Education Programs of Voluntary Health Agencies was reconfirmed. Dr. Williams represents the National Association for Mental Health, Inc., on the Committee; Wilson T. Sowder, M.D., of Jacksonville, reappointed alternate delegate of the American Public Health Association to the Commission on Emergency Medical Services; Eugene L. Nagel, M.D., of Miami, appointed as delegate of the American Society of Anesthesiologists to the Commission on Emergency Medical Services; Roy M. Baker, M.D., of Jacksonville, reappointed to the Committee on Community Emergency Services; James A. Long, Jr., M.D., of Palatka, reappointed to the Committee on Medicine and Religion, and James W. Walker, M.D., of Jacksonville, reappointed to the Committee on Nursing.

Beals Award

The Duval County Medical Society has presented its annual Beals Award for outstanding medical research to Dr. Guillermo M. Pujadas, an orthopedic surgeon in Jacksonville.

Dr. Pujadas was cited for his scientific exhibit on the causes and modified treatment for chronic bursitis. The exhibit was shown earlier this year at meetings of American Academy of Orthopedic Surgeons in Chicago and the National Congress of Orthopedics and Traumatology in Mexico City.

The annual presentation is normally made for an outstanding scientific paper, but the exhibit was selected this year because of its significance according to Dr. Max Michael, who presented the award to Dr. Pujadas.

Members of the Legislature

Four members of the FMA will have seats in the legislature which convenes next year. There are three physician members of the House, and one of the Senate.

Dr. David Lane, member of the Senate, a Fort Lauderdale neurosurgeon, will serve as minority whip for the session. Drs. Richard E. Hodes, a Tampa anesthesiologist, and Walter W. Sackett, a general practitioner from Miami, were re-elected to two years terms. Dr. F. Eugene Tubbs, an internist from Cocoa Beach, was elected to the House.

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A patient centered not for profit hospital for intensive treatment of nervous disorders . . .

Hill Crest Hospital was established in 1925 as Hill Crest Sanitarium to provide private psychiatric treatment of nervous mental disorders. Individual patient care has been the theme during its 45 years of service.

Both male and female patients are accepted and departmentalized care is provided according to sex and the degree of illness.

In addition to the psychiatric staff, consultants are available in all medical specialities.



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The causes of vaginitis are multiple



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You can depend on AVC—comprehensive therapy that combats all three major vaginal pathogens, alone or in combination.

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Cream (ominocrine hydrochloride 0.2%, sulfanilamide 15.0%, allantoin 2.0%)

Suppositories (aminacrine hydrochloride 0.014 Gm., sulfanilomide 1.05 Gm., allontoin 0.14 Gm.)

Contraindications: Known sensitivity to sulfonamides.
Precautions/Adverse Reactions: The usual precautions for topical and systemic sulfanamides should be observed because of the possibility of absorption. Burning, increased local discomfort, skin rash, urticaria or other manifestations of sulfanamide toxicity are reasons to discontinue treatment.
Dosage: One applicatorful or one suppository intravaginally once or twice daily.
Supplied: Cream—Four-ounce tube with or without applicator. Suppositories—Box of 12 with applicator.

TRADEMARK: AVC AV-104 2/71 Y-149

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Complete facilities for evaluation and intensive treatment of psychiatric patients, including individual psychotherapy, group therapy, psychodrama, electro-convulsive therapy, Indoklon convulsive therapy, drugs, social service work with families, family therapy, and an extensive and well organized activities program, including occupational therapy, art therapy, music therapy, athletic activities and games, recreational activities and outings. The treatment program of each patient is carefully supervised in order that the therapy needs of each patient may be realized.

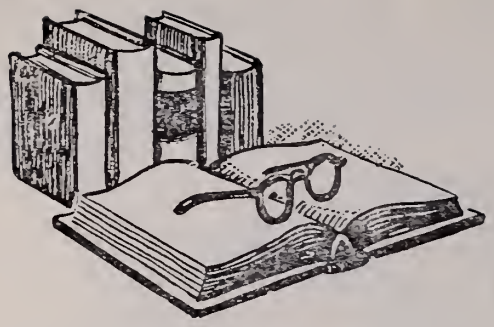
High school facilities for a limited number of appropriate patients are now available on grounds. The School Program is fully integrated into the hospital treatment program and is accredited through the Asheville School System.

Complete modern facilities with 85 acres of landscaped and wooded grounds in the City of Asheville.

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(2) Samuel N. Workman, M.D.
Chief of Clinical Services

(3) Charles W. Neville, Jr., M.D.
Associate Professor of Psychiatry
and Medical Director

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Book Reviews

Essentials of Clinical Endocrinology by Norman G. Schneeberg, M.D. Pp. 449. Price $22.50. Illustrated. St. Louis, The C. V. Mosby Company, 1970.

A book designed for and capable of presenting pertinent and practical information to the busy practitioner would be welcome, indeed, in any clinical area. Dr. Schneeberg has attempted to orient his book to "the student, the resident, and the practicing physician who are untutored in endocrine matters," seeking an introduction or brief review of certain areas, with emphasis on clinical features and practical aspects of therapy. Could the practitioner, then, whether house officer or private physician, turn to this volume with the expectation of gaining a useful understanding of the pathophysiology, clinical features and essentials of management of clinical endocrinologic problems? Not in several of the areas covered and with considerable difficulty in others. Unfortunately, there is all too often obscurity and a vagueness of expression that seriously compromises the book's value. In the presentation of brief reviews of factual material, it is critical that clarity not be sacrificed. However, a second reading of the first chapter, "General Principals of Endocrinology," left me dissatisfied that I had learned anything about the endocrine system in general or the mechanisms of hormone action. Further on, reading of the text is made laborious by a too liberal use of abbreviations, a style that requires frequent "back-tracking" and one that makes comprehension a tedious task.

For a book, or any publication, to address successfully "the untutored," more care in expression and presentation must be exercised than is evident here. Some examples of vague and imprecise statements that hampered understanding of the subject matter were: "Tubular resistance [to ADH] from prolonged diuresis . . .;" ". . . induces some increase of renal Na,"—renal Na what?, excretion?, secretion?, reabsorption?; or further on, ". . . elevated Na/K ratio,"—again, in what?, urine?, sweat?, saliva? Sadly, there are many such examples.

The presentation of clinical features of specific entities, supposedly one of the author's main purposes, doesn't fare much better. There is not enough emphasis given to the ways patients present to the physician. For example, the clinical clue or the hallmark of the syndrome of inappropriate ADH secretion is hyponatremia. Yet, the differential diagnosis of hyponatremia is covered in eleven lines. Eleven pages are devoted to the anatomy of the adrenal cortex, steroid chemistry and biosynthesis of adrenocortical steroids. Similarly, the most important clinical clues to primary aldosteronism are hypertension and hypokalemia, but it takes a good bit of reading to get this from the discussion on the subject. Neither hypertension nor hypokalemia is mentioned in the index (nor is hyponatremia).

The book does contain useful tables of clinical material which are scattered throughout the text, but the presence of these doesn't make up for the poor organization or the lack of clarity in presentation of the rest. This is not a book I would recommend for my housestaff, and the private physician would be better advised to spend his time consulting another source for his "essentials of clinical endocrinology."

Jack W. Hall, M.D.
Pensacola

Benign Diseases of the Vulva and Vagina by Herman L. Gardner, M.D. and Raymond H. Kaufman, M.D. Pp. 359. 406 illustrations. Price $23.50. St. Louis, The C. V. Mosby Company, 1969.

The book is an outgrowth of the desire of the authors to be very comprehensive on matters involving benign vulvar and vaginal diseases. The authors do manage to accomplish this, as far as the chapters on moniliasis, trichomoniasis and Hemophilus vaginalis are presented. The authors' experiences in these common vaginitides are obviously well versed and almost legerdemain in effect.

Other chapters include lucid, well illustrated, rather systematic discussions of etiology, clinical features, histopathology and treatment of viral infections, atrophic and dystrophic diseases, as well as all other known vulvovaginitides and dermatoses.

They include a chapter on intraepithelial carcinoma of the vulva which does not quite fit into the category of the title of benign diseases.

The text also includes chapters on embryology, anatomy and developmental anomalies of the vulva and vagina.

Obviously multiple biopsies as well as wet mount smears and cultures are stressed for accurate diagnosis.

All in all, the book represents a well written, complete treatise on current concepts of the subject and should be read by every practicing gynecologist.

MORTON L. MILLER, M.D.
OPA LOCKA

1970-1971 Drugs of Choice edited by Walter Modell, M.D. Pp. 924. Price $20.50. St. Louis, The C. V. Mosby Company, 1970.

This large book deals with the use of drugs specific for a particular diagnosis. Each chapter is written by a specialist in his field. The organization of the book is similar to that of Current Therapy, although more encompassing. Many sections are rather sketchy and in my opinion, leave out some of the therapeutic considerations. Drug doses are usually outlined in detail, and brand names are used with generic names. There is also a useful cross index of drug names in the back of the book.

The authors also discuss new drugs not yet released on the market, i.e., Diazoxide, so the book will not be outdated for quite a while.

Although this book will not give all the answers, it is an excellent book to have on hand for reference to drugs the doctor does not use everyday—drugs for malaria, antineoplastic drugs, etc. It is also very practical and written for drug usage of everyday diagnoses.

CHARLES A. DUNN, M.D.
MIAMI

Books Received

Receipt of the following books is acknowledged. While time and space will not permit review of all books received, medical readers interested in reviewing particular books are invited to address requests to the Editor. Following acceptance of a written review for publication, a reviewer may then retain the book reviewed for his personal or favorite library.—Ed.

The Adolescent Patient by William A. Daniel Jr., M.D. Pp. 444. 76 illustrations. Price $20.50. St. Louis, The C. V. Mosby Company, 1970.

Spectroscopic Approaches to Biomolecular Conformation edited by D. W. Urry. Pp. 314. Illustrated. Price $15.00. Chicago, American Medical Association, 1970.

Vital Statistics of the United States 1967, Volume III—Marriage and Divorce by U.S. Department of Health, Education, and Welfare. Pp. 53. Price $1.25. Washington, D. C., U. S. Government Printing Office, 1970.

Urological Surgery. 4th Ed. by Austin Ingram Dodson Jr., M.D. Pp. 617. Price $32.50. 694 illustrations. St. Louis, The C. V. Mosby Company, 1970.

The Early Orthopaedic Surgeons of America by Alfred Rives Shands Jr., M.D. Pp. 190. Illustrated. Price $15. St. Louis, The C. V. Mosby Company, 1970.

The Face in Genetic Disorders by Richard M. Goodman, M.D. and Robert J. Gorlin, D.D.S., M.S. Pp. 169. Illustrated. Price $19. St. Louis, The C. V. Mosby Company, 1970.

Infection Control in the Hospital by the American Hospital Association. Pp. 154. Price $4. Chicago, Illinois 1970.

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MEETINGS

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FEBRUARY

2 Second Medical Education and Research Conference, St. Joseph's Hospital, Tampa. For information: Charles S. Thomas, Dir., Community Relations, St. Joseph's Hospital, 3001 W. Buffalo Ave., Tampa 33607.

4- 6 Fifth Annual Symposium on Cosmetic Surgery, Cedars of Lebanon Hospital, Miami. For information: Mary E. Cunningham, R.N., Dir. of Education, Cedars of Lebanon Hospital, 1321 N.W. 14th St., Miami 33125.

11-12 Third Annual Postgraduate Medical Seminar on Electrodiagnosis and Management of Nerve Entrapment Syndromes, Cedars of Lebanon Hospital, Miami. For information: Mary E. Cunningham, R.N., Dir. of Education, Cedars of Lebanon Hospital, 1321 N.W. 14th St., Miami 33125.

13-14 Orange Memorial Hospital and Emory University present "Two Days of Gastroenterology," Red Auditorium, Orlando. For information: Freeman H. Cary, M.D., Dir. of Medical Education, Orange Memorial Hospital, Orlando 32806.

14-19 University of Miami School of Medicine presents "Medical Diagnosis: Truths, Neartruths and Nontruths," Sheraton Four Ambassadors, Miami. For information: J. Bocles, M.D., U. of Miami School of Medicine, Box 875, Biscayne Annex, Miami 33152.

20 Florida Association of General Surgeons, "Practical Aspects of General Surgery," Duval Medical Center, Jacksonville. For information: Clyde M. Collins, M.D., 1503 Oak St., Jacksonville 32204.

22-27 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

27-28 Third Annual Postgraduate Seminar in Anesthesiology, Cedars of Lebanon Hospital, Miami. For information: Mary E. Cunningham, R.N., Dir. of Education, Cedars of Lebanon Hospital, 1321 N.E. 14th St., Miami 33125.

MARCH

6 Early Diagnosis and Management of the Stroke Syndrome, Ponte Vedra Inn, Ponte Vedra. For information: Jacob Green, M.D., 2105 Park St., Jacksonville 32204.

6 Fifteenth Watson Clinic Annual Seminar, Watson Clinic, Lakeland. For information: Brunildo A. Herrero, M.D., Watson Clinic, Lakeland 33802.

6- 7 1971—Physician's Seminar on Respiratory Diseases, Ramada Inn, Tampa. For information: M. A. Barton, M.D., 701-6th St., S., Mound Park Hospital Foundation, Inc., St. Petersburg 33701.

9-13 "Selected Topics in Roentgendiagnosis; Radiologic-Pathologic Correlations," Fontainebleau Hotel, Miami Beach. For information: Manuel Viamonte Jr., M.D., University of Miami School of Medicine, Box 875, Biscayne Annex, Miami 33152.

14-17 Special Procedures in Diagnostic Radiology, Eden Roc Hotel, Miami Beach. For information: Mrs. Gwen Hendel, Mt. Sinai Hospital, Miami Beach 33140.

17-20 Third Teaching Conference in Clinical Cardiology, Sheraton Four Ambassadors, Maimi. For information: Michael S. Gordon, M.D., University of Miami School of Medicine, Box 875, Biscayne Annex, Miami 33152.

22-27 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

26-27 Eighth Annual Postgraduate Surgical Seminar, Cedars of Lebanon Hospital, Miami. For information: Mary E. Cunningham, R.N., Dir. of Education, Cedars of Lebanon Hospital, 1321 14th St., Miami 33125.

National and Regional Meetings Held in Florida

MARCH

1- 6 Society for Cryosurgery, Diplomat Hotel and Country Club, Hollywood. Sec.: Society for Cryosurgery, 30 N. Michigan Ave., Chicago 60602.

7-12 American College of Chest Physicians, "Problems and Approaches to Diagnosis and Management of Cardiopulmonary Failure," University of Miami School of Medicine, Miami Beach. For information: Charles F. Tate, M.D., 1000 N.W. 17th St., Miami 33136.

14-18 International Anesthesia Research Society, Americana Hotel, Miami Beach. Ex. Sec.: B. B. Sankey, M.D. 3645 Warrensville Center Rd., Cleveland 44122.

24-26 American Surgical Association, Boca Raton Hotel and Club, Boca Raton. Sec.: G. Thomas Shires, 5323 Harry Hines Blvd., Dallas 75235.

APRIL

18-22 Southeastern Surgical Congress, Americana Hotel, Miami Beach. Sec.: A. H. Letton, M.D., 340 Blvd., N.E., Atlanta 30312.

MAY

9-15 American Gastroenterological Association, Americana Hotel, Miami Beach. Sec.: H. D. Janowitz, M.D., 11 E. 100th St., New York 10029.

AUGUST

30-Sept. 2 Third Western Hemisphere Nutrition Congress, Americana Hotel, Miami Beach. For information: Council on Foods and Nutrition, American Medical Association, 535 North Dearborn St., Chicago, Ill. 60610.

APRIL

19-24 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

23-24 Seminar on Arthritis and Related Diseases, Sheraton Hotel, Jacksonville. For information: William B. Thirlwell, 2522 Oak St., Jacksonville 32204.

MAY

3- 8 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

24-29 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

FMA Meetings in February

February 7 School Health Advisory Committee
FMA Headquarters, Jacksonville; 10:00 a.m.

February 13 Council on Voluntary Health Agencies
FMA Headquarters, Jacksonville; 10:00 a.m.

February 13 Committee on Advisory to Blue Shield and Fiscal Intermediaries
Gold Key Inn, Orlando; 10:00 a.m.

February 14 Committee on Public Health
FMA Headquarters, Jacksonville; 10:00 a.m.

February 28 Council on Medical Services, Robert Meyer Motor Inn, Orlando; 10 a.m.

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ASSOCIATE OR LOCUM TENENS in well established urological practice in S. E. Florida area. Excellent hospitals. Proper applicant could lead to future purchase. Write C-967, P.O. Box 2411, Jacksonville, Florida 32203.

PSYCHIATRIST WANTED for private practice in excellent family town, two major universities, junior college, state capital, trade area of 350,000. Modern, 400-bed hospital five minutes from residential area. Contact: Royce V. Jackson, M.D., P.A. or Robert W. Miles, M.D., 1322 North Magnolia Drive, Tallahassee, Florida 32303, phone (904) 877-3102.

Miscellaneous

GENERAL PRACTITIONERS OR INTERNISTS: One or two to join established GP in forming a group in rapidly growing area in central Florida. Semi-rural community, suburb of large city, good schools with balanced trouble free integration already accomplished. Write C-972, Post Office Box 2411, Jacksonville, Florida 32203.

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ADDITIONAL PHYSICIANS NEEDED for group practice. All fields of practice in short supply, especially GP, pediatrics, allergy, dermatology, geriatrics, internal medicine and obstetrics. County shows extremely rapid growth. New hospital to be completed in near future. Contact Charlotte Inter-Medic Health Center, 1120 South Tamiami Drive, Port Charlotte, Florida 33950. Telephone: (813) 625-7121.

WANTED IMMEDIATELY: Private emergency room physician. Corporate group needs fifth physician in teaching hospital, Orlando, Florida. Prefer GP. Florida license required. Contact Bruce S. Webster, M.D. (305) 647-5728 or Robert Gay, M.D. (305) 422-0159.

ADDITIONAL PHYSICIANS URGENTLY NEEDED: GP, internal medicine, obstetrics, pediatrics and general surgery. Modern office immediately available. Contact Pat M. Woodward, M.D., P.O. Box 819, Quincy, Florida 32351.

PHYSICIANS NEEDED: Tallahassee, Leon County, Northwest. General practitioners, internists and pediatricians in particular. Inquiries regarding practice in this community can be forwarded to J. Orson Smith Jr., M. D., Chairman, Physician Procurement Committee, 1433 Miccosukee Rd., Tallahassee, Fla. 32303. Phone (904) 877-1145.

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LOCATION OR ASSOCIATION DESIRED: Florida intern desires association, group practice, or location for solo practice in Florida. Write Larry E. Stevens, M.D., 209 S. Hubert, Tampa, Florida 33609.

SITUATION WANTED: Radiologist to retire from group practice by April 30th desires full or part time position. Will reside permanently in Florida after May 1. Write 206 Golf Terrace, Crookston, Minnesota 56716.

BOARD CERTIFIED INTERNIST—Subspecialty cardiology, age 34, military obligation completed, wishes association in southeast Florida. Write C-971, P.O. Box 2411, Jacksonville, Fla. 32203.

CARDIOLOGIST: Board certified, Florida license, seeks association with other internists or cardiologists. Available summer, 1971. Write Box C-974, P.O. Box 2411, Jacksonville, Florida 32203.

INTERNIST—CARDIOLOGIST: Board certified, Florida license, age 31, military service completed. University trained, cath. experienced. Desires association in Florida location with one or two M.D.'s of similar background. Write C-976, P.O. Box 2411, Jacksonville, Florida 32203.

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(Continued on page 70)

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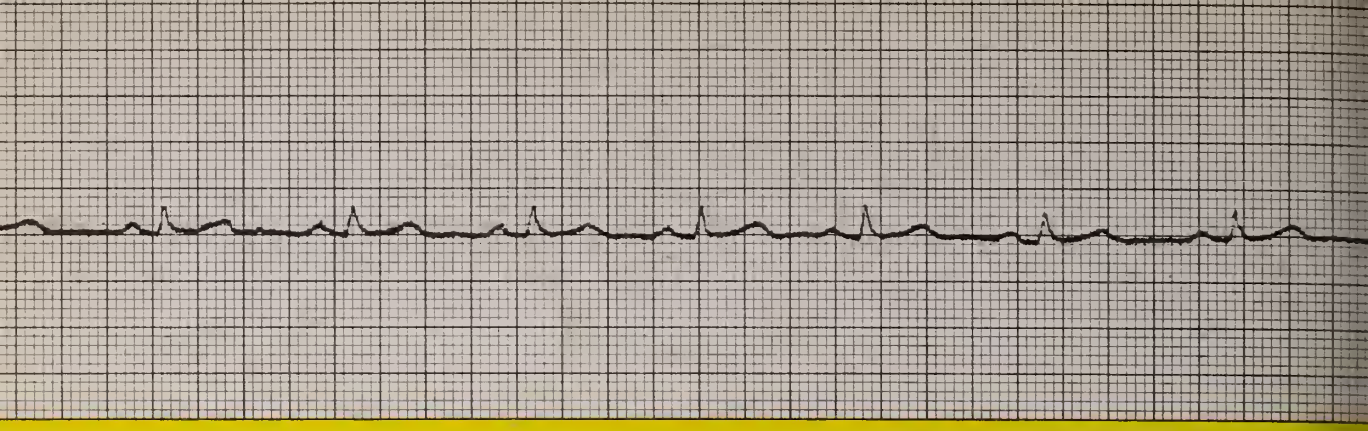
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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms have occurred following abrupt discontinuance. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, weigh potential benefit against possible hazard.

Precautions: If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation, have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.



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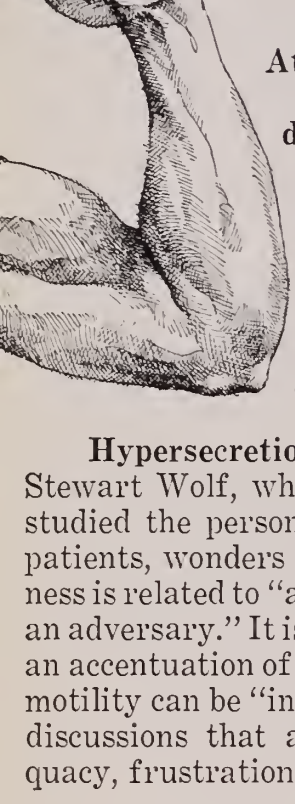
THE JOURNAL OF THE Florida Medical Association

THE FLORIDA MEDICAL ASSOCIATION, INC. U.S.A.

MARCH, 1971 • VOLUME 58 • NUMBER 3



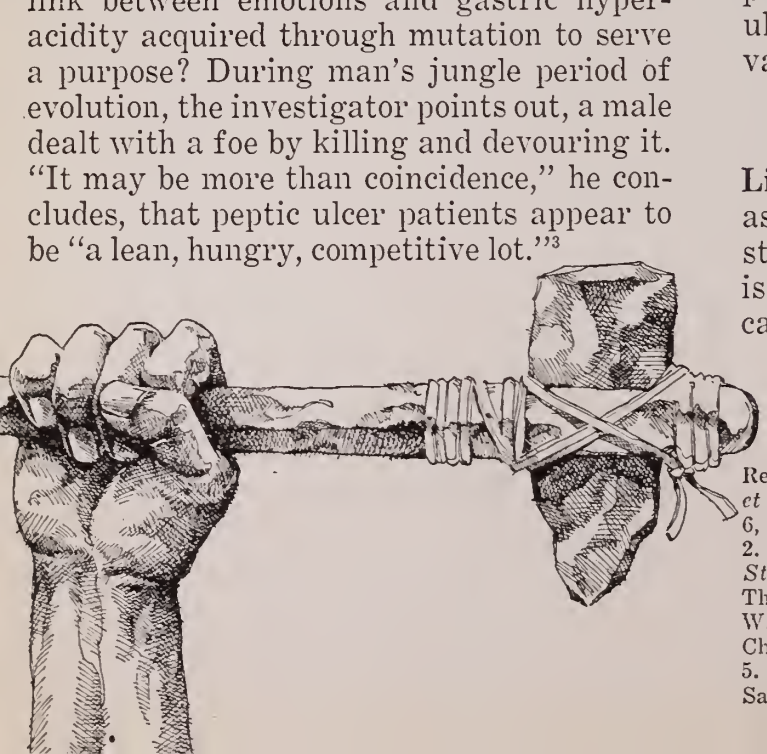
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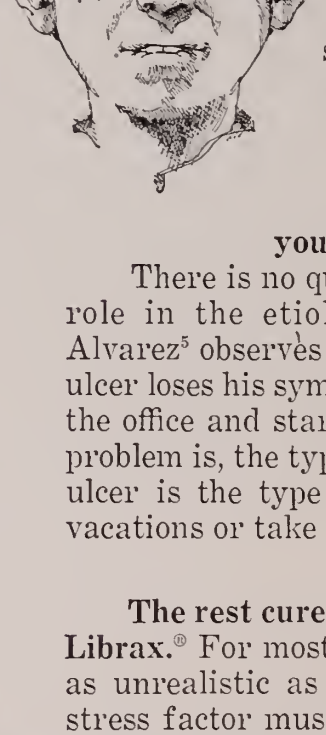
At least seventy-five out of one hundred adults with duodenal ulcers are men.[1] Why? It may be significant that duodenal ulcer patients tend to crave recognition and are "especially vulnerable to threats to their manly assertive independence."[2]

Hypersecretion—an atavistic response. Stewart Wolf, who, with Harold G. Wolff, studied the personalities of duodenal ulcer patients, wonders if masculine competitiveness is related to "an atavistic urge to devour an adversary." It is striking, he reports, that an accentuation of gastric acid secretion and motility can be "induced in ulcer patients by discussions that arouse feelings of inadequacy, frustration and resentment."[2]

By chance? A lean, hungry lot. Was the link between emotions and gastric hyperacidity acquired through mutation to serve a purpose? During man's jungle period of evolution, the investigator points out, a male dealt with a foe by killing and devouring it. "It may be more than coincidence," he concludes, that peptic ulcer patients appear to be "a lean, hungry, competitive lot."[3]



Big boys don't cry. If more men crie maybe fewer would wind up with duoden ulcers. But men will be men—the sum total their genes and what the are taught. Schottstaed observes that when mother admonishes h son who has hurt himse that big boys don't cry, sh is teaching hi stoicism.[4] Crying is th negation of everythin society thinks of as manl A boy starts defending h manhood at an early ag

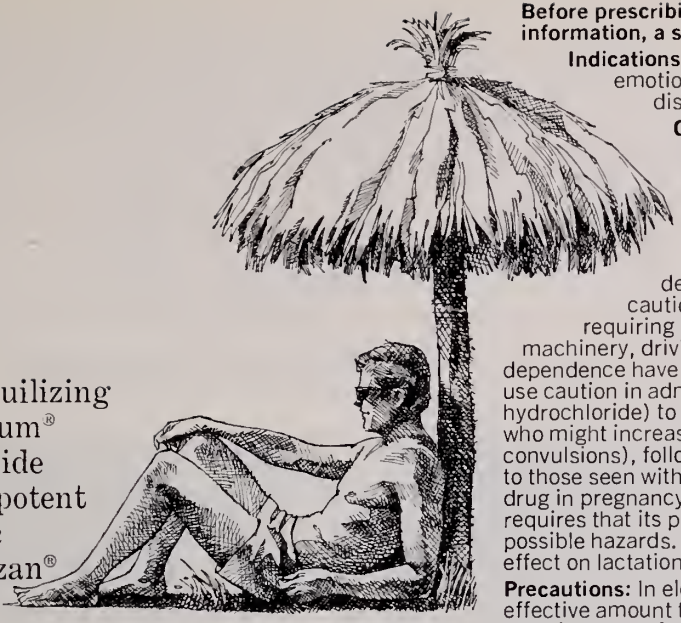


Take away stres you can take away symptom

There is no question that stress plays role in the etiology of duodenal ulce Alvarez[5] observes that many a man with a ulcer loses his symptoms the day he shuts u the office and starts out on a vacation. Th problem is, the type of man likely to have a ulcer is the type least likely to take lon vacations or take it easy at work.

The rest cure vs. the two-way action c Librax.® For most patients, the rest cure i as unrealistic as it is desirable. Still, th stress factor must be dealt with. And her is where the dual action of adjunctive Libra can help. Librax is the only drug that con

References: 1. Silen, W.: "Peptic Ulcer," in Wintrobe, M. M *et al.* (eds.): *Harrison's Principles of Internal Medicine*, e 6, New York, McGraw-Hill Book Company, 1970, p. 144 2. Wolf, S., and Goodell, H. (eds.): *Harold G. Wolff Stress and Disease*, ed. 2, Springfield, Ill., Charles Thomas, 1968, pp. 68-69. 3. *Ibid.*, p. 257. 4. Schottstaed W. W.: *Psychophysiologic Approach in Medical Practic* Chicago, Ill., The Year Book Publishers, Inc., 1960, p. 16 5. Alvarez, W. C.: *The Neuroses*, Philadelphia, Pa., W. Saunders Company, 1951, p. 384.



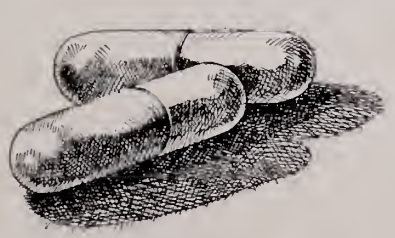
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Protects man from his own hungry personality. The action of Librium reduces xiety—helps protect the vulnerable patient o the psychological overreaction to stress a clutches his stomach. At the same time, eaction of Quarzan helps quiet the hyper-t e gut, decreasing hypermotility and ypersecretion.

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i ax: Rx #60 1 cap. *a.c.* and 2 *h.s.*



Before prescribing, please consult complete product information, a summary of which follows:

Indications: Indicated as adjunctive therapy to control emotional and somatic factors in gastrointestinal disorders.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (*e.g.*, excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

in the treatment of duodenal ulcer

adjunctive

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MARCH COVER—Our thanks to Dr. Roy Kupsinel for sending us the cover photograph which he took in Brughes, Belgium this past summer. Dr. Kupsinel thought "it might be appropriate in that it ties in relaxation which is an important part, but all too often too small a part, of a physician's life."

President's Page



Dearth of Doctors

We hear a lot these days about the critical shortage of doctors. Of course there is some shortage; probably more important there is some maldistribution of doctors. The critical stage didn't arrive, however, until somebody said medical care is now a right; doctors are, by government edict, to be fully available day and night to all people for all things—or at least, that's what a lot of people think has been said and ordained and shall be, amen.

One possible way to lessen this shortage is to have physician's assistants. There will be problems of certification, liability, responsibility, etc. with these people. FMA has a committee taking a long hard look at this. Dr. Irving Hall had his physician assistant with him and presented his functions to the meeting of County Society Presidents and Secretaries, at my request. He has an efficient use of a physician assistant and the idea is interesting but I am personally not completely sold, yet.

Dr. Bornemeier, President of AMA, wants to train doctors faster and in fewer years, as well as increase medical school admissions. He also advocates more efficient use of residents and shortening their training time. His suggestions are logical and good; however, their effect in alleviating the present shortage will be, at best, some time off.

Some things are certain: A compulsory national health insurance can do absolutely nothing to relieve the shortage; it would probably make it worse. It can do nothing to lower the cost of medical care; it would probably make it higher.

As a GP, I already see a maximum number of patients a day. I don't believe any governmental scheme can make me see more; to the contrary, with increased paper work I'd probably see fewer. I believe most doctors are as fully extended as I.

We all agree on one thing; we need more doctors; but good doctors. An interesting point has arisen in our state. With the repeal of the Basic Science law, Florida is licensing over 2,000 doctors a year. Do we, therefore, really need a third medical school? How many of these doctors will practice here? Of course, on the other side of the coin, they say over 400 *qualified* medical school applicants from Florida were refused admission to medical schools this year. Is every qualified applicant to be guaranteed a spot in medical school? Some educators advocate just that.

Today I'm just asking what I consider interesting questions. The answers will come, but slowly and with difficulty and probably not from me.

James T. Voth, Jr., M.D.

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Precautions: Should be used with caution in patients who have glaucoma. Tolerance to this drug, and cross-tolerance to other nitrites and nitrates may occur.
Adverse Reactions: Side effects reported to date have been predominantly related to rash (which requires discontinuation of medication) and headache and gastrointestinal distress, which are usually mild and transient with continuation of medication. In some cases severe persistent headaches may occur. In addition, the following adverse reactions to nitrates such as pentaerythritol tetranitrate have been reported in the literature: (a) Cutaneous vasodilatation with flushing. (b) Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop. (c) An occasional individual exhibits marked sensitivity to the hypotensive effects of nitrite and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration and collapse) can occur, even with the usual therapeutic doses. Alcohol may enhance this effect.
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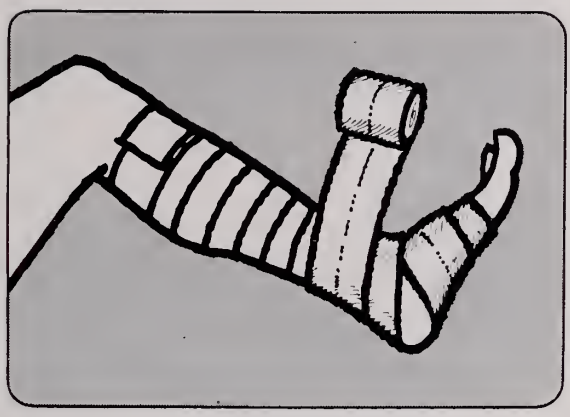
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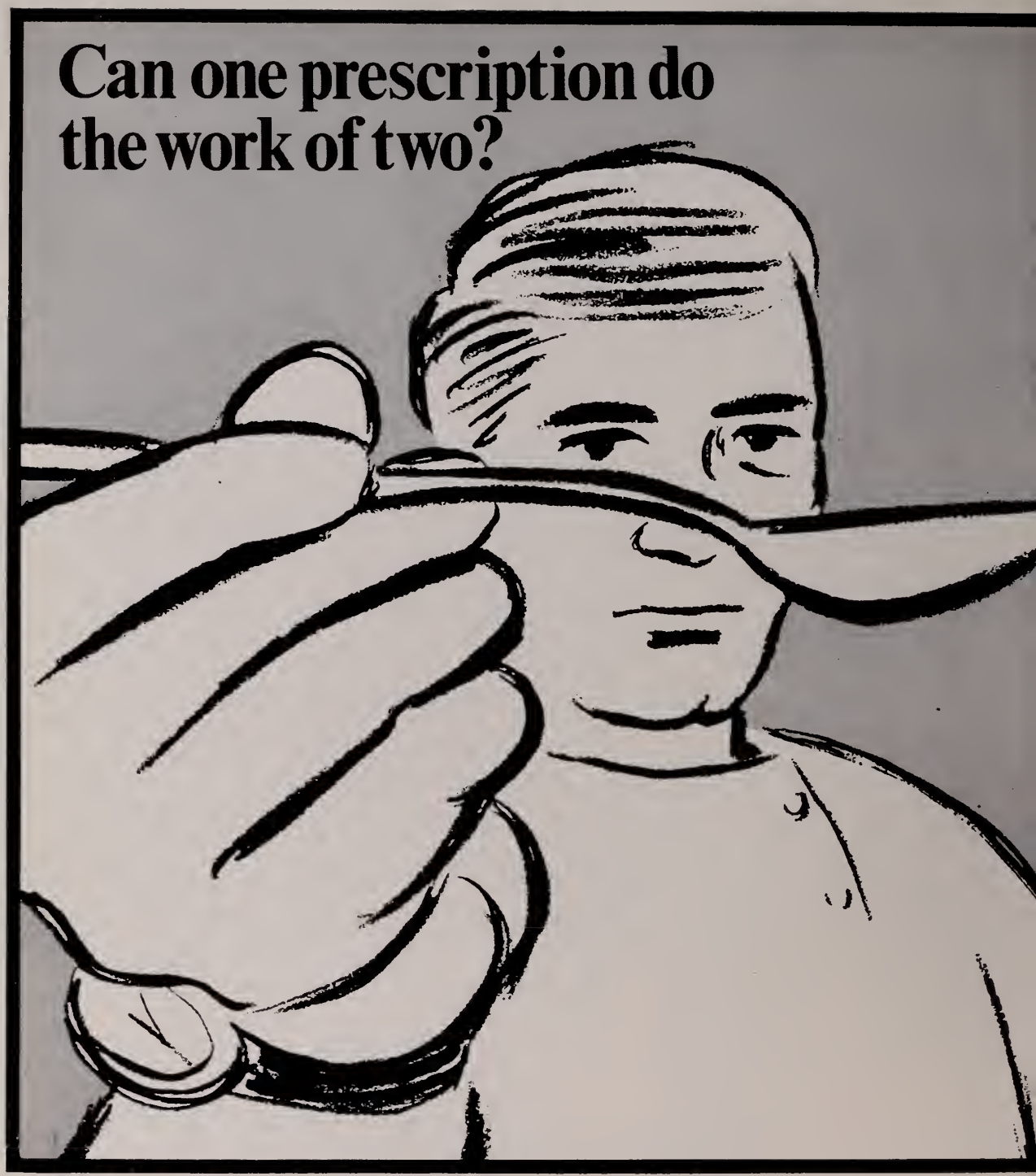
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Efudex®
(fluorouracil)
cream/solution

In the treatment of solar/actinic keratoses–
An alternative to cold, fire and steel

2/23/68
Before treatment with 5% 5-FU cream. Patient R. G., 78 years old, shows extensive skin changes due to weathering and severe solar/actinic keratoses.

3/26/68
Following one month of therapy. Intense erythematous reaction is seen at sites of keratoses. Normal skin has not reacted. Some areas which had reacted initially have undergone healing despite continued topical application of 5% 5-FU.

6/11/68
Ten weeks after discontinuance of therapy. All areas have healed completely Residual mild erythema remains in some areas. This patient also had seborrheic keratoses which, as expected, have not reacted. There is no evidence of residual lesions or recurrences.



ROCHE
Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N J. 07110

An alternative to conventional therapy

Efudex (fluorouracil) offers the physician a topical alternative to cryosurgery, electrodesiccation and cold-knife surgery in the treatment of solar/actinic keratoses. It is effective, comparatively inexpensive and especially well suited for treatment of these multiple lesions. Important, too, is the highly desirable cosmetic result. Clinical experience demonstrates that treatment with Efudex results in an extremely low incidence of scarring.*

Highly effective

In clinical trials, depending on the dosage form and strength used, complete involution occurred in 77 to 88 per cent of lesions following treatment. The rate of recurrence was low, ranging from 1.7 to 5.6 per cent up to a year after completion of therapy. When new lesions appeared, repeated courses of Efudex therapy proved effective.*

Predictable therapeutic response

Two to four weeks constitutes a typical course of Efudex therapy. The response is usually characteristic and predictable. After three or four days of treatment, erythema begins to appear in the area of keratoses. This is followed by an intense inflammatory response, scaling and occasionally moderate tenderness or pain. The height of the inflammatory reaction generally occurs two weeks after the start of therapy, and then begins to subside as treatment is stopped. Within two weeks of discontinuing medication, the inflammation is usually gone. A mild erythema may remain for two or three months before gradually receding. Since this response is so predictable, lesions which do not respond should be biopsied.

Two strengths—two dosage forms

Efudex is available as a 2% or 5% solution or as a 5% cream. It is applied twice daily by the patient with a nonmetal applicator or suitable glove.

Before prescribing Efudex, however, two important considerations: First, please consult the complete prescribing information for precautions, warnings and adverse reactions. Second, advise the patient that treated lesions should respond with the characteristic but transient inflammation. A positive sign that Efudex is working for them.

*Data on file, Hoffmann - La Roche Inc., Nutley, New Jersey.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Efudex Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)-aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Efudex Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing-cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).



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Brief Summary of Prescribing Information– 9-9/22/69. For complete information consult Official Package Circular.
Indications: Essential hypertension. Use cautiously in patients with renal insufficiency, particularly if they are digitalized.
Contraindications: Anuria, oliguria, active peptic ulceration, ulcerative colitis, severe depression or hypersensitivity to its components contraindicates the use of Salutensin.
Warnings: Small-bowel lesions (obstruction, hemorrhage, perforation and death) have occurred during therapy with enteric-coated formulations containing potassium, with or without thiazides. Such potassium formulations should be used with Salutensin only when indicated and should be discontinued immediately if abdominal pain, distension, nausea, vomiting or gastrointestinal bleeding occurs. Use cautiously, and only when deemed essential, in fertile, pregnant or lactating patients. *Use in Pregnancy:* Thiazides cross the placenta and can cause fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly electrolyte disturbances. Fatal reactions may occur with reserpine during electroshock therapy; discontinue Salutensin 2 weeks before such therapy. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.
Precautions: Azotemia, hypochloremia, hyponatremia, hypochloremic alkalosis and hypokaliemia (especially with hepatic cirrhosis and corticosteroid therapy) may occur, particularly with pre-existing vomiting and diarrhea. Potassium loss or protoveratrine A may cause digitalis intoxication. *Potassium loss responds to potassium-rich foods, potassium chloride or, if necessary, discontinuation of therapy. Stop therapy if protoveratrine A induces digitalis intoxication.* Serum ammonia elevation may precipitate coma in precomatose hepatic cirrhotics. Discontinue therapy 2 weeks before surgery or if myocardial irritability, progressive azotemia or severe depression occur. Exercise caution in patients with chronic uremia, angina pectoris, coronary thrombosis or extensive cerebral vascular disease *or bronchial asthma* and in those with a history of peptic ulceration or bronchial asthma; in post-sympathectomy patients; in patients on quinidine; and in patients with gallstones, in whom biliary colic may occur. Patients who have diabetes mellitus or who are suspected of being prediabetic should be kept under close observation if treated with this agent.
Adverse Reactions: Hydroflumethiazide: Skin rashes (including exfoliative dermatitis), skin photosensitivity, urticaria, necrotizing angiitis, xanthopsia, granulocytopenia, aplastic anemia, orthostatic hypotension (potentiated with alcohol, barbiturates or narcotics), allergic glomerulonephritis, acute pancreatitis, liver involvement (intrahepatic cholestatic jaundice), purpura plus or minus thrombocytopenia, hyperuricemia, hyperglycemia, glycosuria, malaise, weakness, dizziness, fatigue, paresthesias, muscle cramps, skin rash, epigastric distress, vomiting, diarrhea and constipation. *Reserpine:* Depression, peptic ulceration, diarrhea, Parkinsonism, nasal stuffiness, dryness of the mouth, weight gain, impotence or decreased libido, conjunctival injection, dull sensorium, deafness, glaucoma, uveitis, optic atrophy, and, with overdosage, agitation, insomnia and nightmares. *Protoveratrine A:* Nausea, vomiting, cardiac arrhythmia, prostration, blurring vision, mental confusion, excessive hypotension and bradycardia. (Treat bradycardia with atropine and hypotension with vasopressors.)
Usual Dose: 1 tablet b.i.d.
Supplied: Bottles of 60, 600, and 1000 scored 50 mg. tablets.

Salutensin®
hydroflumethiazide, 50 mg./reserpine, 0.125 mg. protoveratrine A, 0.2 mg.

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New Nilcol- A Comprehensive Formula:

DESCRIPTION	Contents in mg Toblet	Elixir—each 15 ml
phenylpropanalamine HCl	50	25
chlorpheniramine maleate	4	2
glyceryl guaiacolate	200	100
dextramethorphan HBr	30	15
alcohol		10%

The scared, elliptical tablet is light violet. The elixir is deep violet in color and grape-flavared.

ACTIONS Each camponent af Nilcal hos been selected ta provide symptamatic relief of cangestion and cough in upper respiratary disarders.

Phenylprapanolamine hydrochloride is o vasoconstrictor which reduces congestion of the nasopharyngeal mucosa. Chlorpheniromine maleate, a widely used antihistamine, helps ta contral allergic symptams. The expectorant is glyceryl guaiacolate which helps ta increase the secretion and decrease the viscosity of fluids of the respirotory tract. Dextromethorphon is a well-knawn, centrolly acting antitussive. Nilcol may minimize the need for topical decongestants.

INDICATIONS Nilcol is indicated for nasol ond bronchial congestion; coughs and other symptoms of respiratary infections including influenzo and the cammon cold; other respirotory canditions such os sinusitis, allergic rhinitis or hoy fever.

CONTRAINDICATION Hypersensitivity ta any ingredient.

PRECAUTIONS Because of the possibility of drowsiness, patients should be cautioned agoinst driving and operating machinery. Administer with caution to potients with hyperthyroidism, hypertensive cardiovascular disease, diabetes mellitus and liver diseose. Use in pregnancy is not recammended.

ADVERSE REACTIONS Anxiety, restlessness, tensian, insamnia, tremor, weakness, headache, vertigo, sweating, nauseo, and vomiting may possibly occur.

SUPPLIED Tablets in bottles of 100. Elixir in bottles of 32 fl oz (1 qt) with dosage cups. N-GP-11-4C

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New Nilcol™ Rx Tablets/Elixir

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An Expectorant • An Antihistamine
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Delicious, Grape-Flavored **Elixir**	5 ml (1 tsp) †	10 ml (2 tsp)	½ oz (1 tbs)	1 oz (2 tbs)
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†Plus "Age-Calibrated" Medicine Cup for Precision-Assured Dosage.

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Often, the prompt yet gentle daytime sedative action of BUTISOL Sodium is all that's needed to help these patients meet their daily demands— and to provide them with a good night's sleep without resorting to hypnotic doses.

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Contraindications: Porphyria or sensitivity to barbiturates.
Precautions: Exercise caution in moderate to severe hepatic disease. Elderly or debilitated patients may react with marked excitement or depression.
Adverse Reactions: Drowsiness at daytime sedative dose levels, skin rashes, "hangover" and systemic disturbances are seldom seen.
Warning: May be habit farming.
Usual Adult Dosage: For daytime sedation, 15 mg. to 30 mg. t.i.d. or q.i.d. For hypnosis, 50 mg. to 100 mg.
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BUTICAPS® [Capsules BUTISOL SODIUM (sodium butabarbital)] 15 mg., 30 mg., 50 mg., 100 mg.

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DEATHS

Abel, Bernard, Miami; born 1915; Kansas City University, 1942; member AMA; died October 21, 1970.

Canning, Harold B., Wewahitchka; born 1915; Boston College of P & S, 1942; member AMA; died December 3, 1970.

Chambers, Silas E., Miami; born 1899; University of Virginia, 1923; member AMA; died November 1, 1970.

Christie, Gerard E., Titusville; born 1908; Tulane University, 1932; member AMA; died December 12, 1970.

Creel, William J., Eau Gallie; born 1880; Emory University, 1908; member AMA; died November 8, 1970.

Denman, Francis E., Miami Beach; born 1895; University of Louisville, 1917; member AMA; died October 16, 1970.

Ingram, William Jr., Jacksonville; born 1921; University of Georgia, 1946; member AMA; died December 20, 1970.

Nelson, Orville N., St. Petersburg; born 1896; University of Minnesota, 1920; member AMA; died December 27, 1970.

Oliphant, Jones B., Crystal River; born 1898; University of Georgia, 1924; member AMA; died December 1, 1970.

Putnam, George H., Keystone Heights; born 1907; Rush Medical College, 1934; member AMA; died December, 1970.

Smith, Sidney, Bradenton; born 1912; Rush Medical College, 1941; member AMA; died November 12, 1970.

Thomas, David John Jr., West Palm Beach; born 1931; Hahnemann Medical College, 1958; member AMA; died November 14, 1970.



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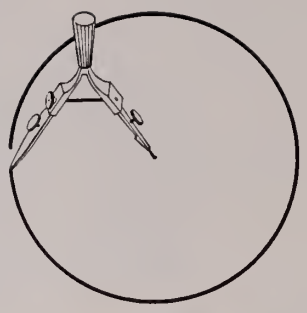
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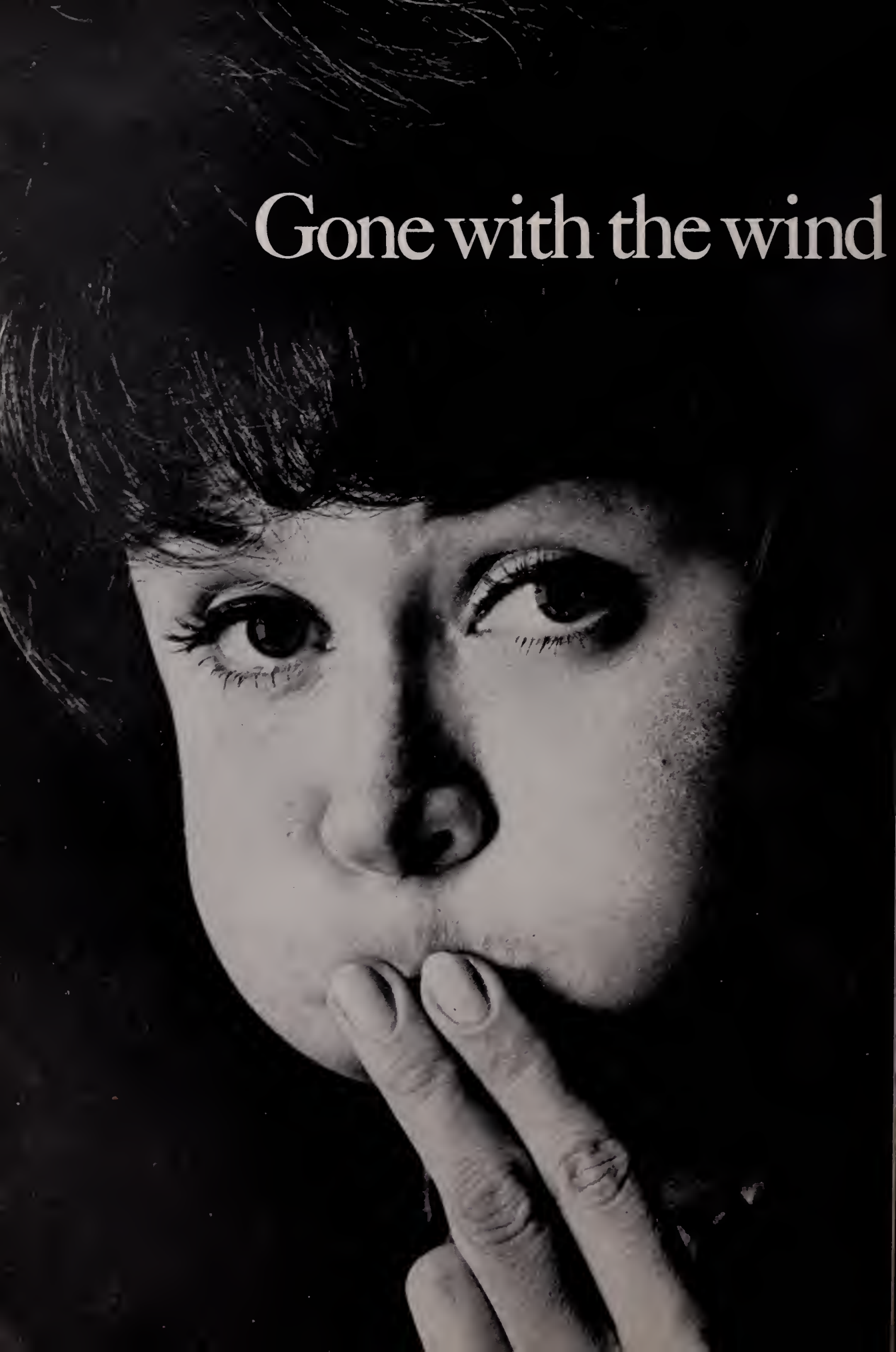
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*Slanger, A.: Med. Times *94*:150 (Feb.) 1966.

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Vitamin B_6 reportedly reduces the benefits of levodopa, and may lead to discontinuance of therapy because of apparent ineffectiveness.

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Complete Prescribing Information:
Each Larobec tablet contains:

Thiamine mononitrate (vitamin B_1)	15 mg
Riboflavin (vitamin B_2)	15 mg
Niacinamide	100 mg
Calcium pantothenate	20 mg
Cyanocobalamin (vitamin B_{12})	5 mcg
Folic acid	0.5 mg
Ascorbic acid (vitamin C)	500 mg

Description: For prophylactic or therapeutic nutritional supplementation concomitant with levodopa therapy in patients with Parkinson's disease and syndrome, Larobec provides high potency dosages of the major B-complex vitamins, without pyridoxine (vitamin B_6) which has been reported[1,2] to reduce the clinical benefits of levodopa therapy. B-complex vitamins are essential in the anabolism of carbohydrate and protein and in hematopoiesis. Larobec also contains therapeutic quantities of ascorbic acid, a substance involved in intracellular reactions such as tissue repair and collagen formation.
Indications: Larobec is indicated for supportive nutritional supplementation when a water-soluble vitamin formula (without pyridoxine) is required prophylactically or therapeutically in patients under treatment with levodopa.
Warning: Administration of vitamin B_6 may be required if signs of pyridoxine deficiency develop. Larobec is not intended for treatment of pernicious anemia or other primary or secondary anemias. Neurologic involvement may develop or progress, despite temporary remission of anemia, in patients with pernicious anemia who receive more than 0.1 mg of folic acid per day and who are inadequately treated with vitamin B_{12}.
Dosage and Administration: One or two tablets daily, as indicated by clinical need.
How Supplied: Orange-colored, capsule-shaped tablets, imprinted Roche 73; bottles of 100.
References:
1. Duvoisin, R. C., *et al.*: *Trans. Amer. Neurol. Assoc.*, *94*:81, 1969. 2. Cotzias, G. C.: *J.A.M.A.*, *210*:1255, 1969.



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THE JOURNAL OF THE Florida Medical Association

MARCH, 1971 • VOLUME 58 • NUMBER 3

Rupture of the Spleen During Pregnancy

ROBERT E. MCCAMMON, M.D.

The practicing physician, in this day of increasing incidence of trauma from many causes, is quick to think of a ruptured spleen in cases of massive abdominal bleeding. However the spontaneous rupture of the normal spleen, especially in pregnancy, is a rare occurrence. Saxtorph[1] in 1803, first reported a case of ruptured spleen during pregnancy. It was not until 1898 that Savor[2] reported a case treated by splenectomy at five and a half months' gestation in which the patient survived and delivered normally at term. Sparkman,[3] in 1958, was able to gather only 44 cases and Buchsbaum,[4] in 1967, added an additional 26 cases. Only two cases[5,6] have appeared in English literature since then, both being secondary to trauma. A case of spontaneous rupture of a normal spleen recently occurred in our practice and forms the basis for this report and review.

Case Report

The patient was a 27-year-old para II-0-0-II white female who was admitted in the 37th week of pregnancy complaining of the sudden onset of severe epigastric pain which occurred while walking through her living room at home. She became nauseated, vomited, and, because the severe pain persisted, came to the hospital. Her prenatal course had been entirely normal; she had had two previous pregnancies. Her youngest child was age ten. Careful history revealed no trauma nor any symptoms referrable to the gastrointestinal or urinary tract. She had had no previous abdominal surgery and her medical history was entirely normal. The fetus was active and there were no signs of labor or abruptio placentae.

Physical examination on admission revealed blood pressure 90/50, pulse 94 and respirations 24. She appeared to be an acutely ill gravid woman, lying still in bed, complaining of constant epigastric and left hypogastric pain which was soon referred to both shoulders. Pertinent physical findings were limited to the abdomen. The term-sized uterus was soft; no contractions or tenderness were noted. The infant was in the vertex presentation. The estimated fetal weight was approximately six pounds. Fetal heart tones were normal. The epigastric and left hypogastric areas were tender to palpation, especially the latter. No shifting dullness was noted. Vaginal examination revealed the cervix to be soft, long, and 2 cm. dilated.

Laboratory examination revealed a hemoglobin of 9.3 Gm.%, hematocrit 28% and white blood cell count 20,000. The urinalysis proved negative except for 1+ albumin. X-rays of the chest and abdomen contained no diagnostic abnormalities.

Surgical consultation was obtained, and fluid and blood started intravenously, and the patient was taken to the operating room with a preoperative diagnosis of ruptured spleen. The abdomen was explored through a transverse upper abdominal incision. Bleeding from the splenic area was profuse and the patient became hypotensive. Considerable effort was necessary to control the bleeding and exposure was difficult because of the large uterus. A splenectomy was performed and a 5 cm. laceration on the anterior surface of the spleen was noted. The patient was given 7500 cc. of blood during the procedure. Cesarean section was then performed and she was delivered of a 2950 Gm. stillborn infant. The cesarean section was done because the patient's condition was so precarious that we did not wish to subject her to the additional stress of labor, and also we could not be certain of the condition of the fetus. Postoperatively the hemoglobin was 10.6 Gm.%. She made a remarkably uneventful recovery and was released on the sixth postoperative day.

The pathological report revealed no abnormalities in the spleen other than the 5 cm. laceration.

Her menses resumed nine weeks postpartum and have continued at regular intervals. She remains in good health.

Etiology

Etiology of rupture of the spleen has been generally listed as due to: (a) toxemia; (b) trauma; (c) spontaneous.

Toxemia is mentioned mainly for historical reasons as it is seldom associated with splenic rupture in current practice. In fact, none of Buchsbaum's cases were due to this etiology and only four cases in Sparkman's series.

Trauma is one of the most common causes of rupture of the spleen. The trauma may be external in the form of penetrating or nonpenetrating injury.[7] The automobile accident is a frequent offender, representing between 58% and 85% of the cases. The rupture may be delayed, the so-called biphasic rupture, and very frequently the interval between the trauma and the massive hemorrhage is symptom-free and may last over a week. The delay in this severe hemorrhage has been suggested as occurring in one of two ways:

(1) The trauma can cause a laceration of the splenic parenchyma and capsule resulting in an initial bleed which is tamponaded by blood clot, omentum or nearby structures.

(2) The trauma causes parenchymal damage and bleeding but leaves the capsule intact. Later the rupture occurs as the result of an expanding subcapsular hematoma.

The trauma may also be internal with such causes as vomiting, sneezing, bending, coitus, straining at the stool being implicated.[8]

Medical literature has recorded numerous cases of spontaneous rupture of the diseased spleen. Many diseases have been implicated including malaria,[9] Banti's syndrome,[10] subacute bacterial endocarditis,[11] infectious mononucleosis,[12] sarcoidosis,[13] leukemia,[14] typhoid fever[15] and pancreatitis.[16] Whether spontaneous rupture of a normal spleen may occur is a controversial question. Orloff and Peskin[17] found that only 28 of 71 cases reviewed in 1958 met their criteria for spontaneous rupture of the normal spleen. In only eight of the 26 cases reported by Buchsbaum and in 12 of 44 cases in Sparkman's series could no etiology be found. The vast majority of these cases occurred in the third trimester of pregnancy, and Sparkman believed this suggested a causal relationship between the hypervolemia of pregnancy and rupture of the spleen. Other theories include passive congestion of the splenic vessels due to portal hypertension, aneurysms within the splenic parenchyma, and thrombosis of the splenic vein. To date there is no valid evidence to suggest that change in the size of the spleen, per se, is responsible for rupture of this organ during pregnancy. In fact, Buchsbaum believes there is no evidence to indicate a causal relationship between pregnancy and splenic rupture.

Clinical Picture

Typically, the patient is a multipara in her late 20's and is in the third trimester of pregnancy. The clinical picture is one of rapidly changing massive intraperitoneal hemorrhage. The patient usually complains of abdominal pain and tenderness, most intense in the epigastric and left hypochondrium, but it may be generalized. Nausea and vomiting are common. Kehr's sign (left shoulder pain) is a valuable aid in about one fourth of the cases. Ballance's sign (increased fixed dullness in the left flank and hypochondrium with shifting dullness on the right) is usually obscured by the large uterus; muscle spasm is also usually obscured. Uterine tenderness may be present and may confuse the clinician and delay the operation. Anemia and leukocytosis are common laboratory findings, and x-rays are generally not helpful. The use of abdominal paracentesis may be a useful diagnostic tool.

Delayed hemorrhage, or biphasic rupture, is a frequent occurrence and may follow a comparatively slight initial injury. The latent period is usually symptom-free and may last for several hours or days and then show the sudden appearance of signs of renewed internal hemorrhage. In one series it made up approximately one third of the cases.[18] This type of rupture in pregnancy will be encountered more often in the future as accidents on our highways continue to increase and to involve the pregnant female.

The two principal reasons for delaying the operation are usually difficulty in deciding whether symptoms are due to uterine injury and the frequent absence of unmistakable signs of intra-abdominal hemorrhage. The obstetrician frequently sees the patient first, and common misdiagnoses include abruptio placentae, ruptured uterus, ruptured ovarian cyst, and ectopic pregnancy. The correct preoperative diagnosis is seldom made, and the abdomen is frequently explored through a lower midline incision. In one series[17] the author found inadequate incision in 75% of the cases that came to splenectomy.

Treatment

Splenectomy is the treatment of choice for a ruptured spleen, along with liberal blood transfusions. The incision of choice is the left subcostal or transverse upper abdominal one. If pregnancy is near term, a cesarean section may be performed and will probably enhance the fetal outcome; however, if pregnancy is not near term and the uterus does not obstruct free access to the spleen, it is better to leave the fetus in the uterus and allow the patient to deliver normally later, hopefully at term.

Maternal-Fetal Outcome

In Sparkman's series the maternal mortality for all reported cases was 45%. However, if only the 30 years prior to 1958 were considered, the death rate was 26%. The fetal mortality was 59% and did not show significant change. In Buchsbaum's series there was a 15.4% maternal mortality and the infant mortality was approximately 30%. The longest period of gestation at the time of rupture in which the infant survived was 22 weeks. The fetus appears to be able to withstand prolonged periods of hypotension in early pregnancy, but seldom survives in the third trimester.

Summary

A case of spontaneous rupture of a normal spleen in pregnancy is presented. A review of the literature and discussion of the etiology of splenic rupture and pertinent clinical and therapeutic aspects of this unusual occurrence are discussed.

The author wishes to thank Eugene J. Cornett, M.D., for participation in the management of this case.

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Good name in man and woman, dear my lord,
Is the immediate jewel of their souls:
Who steals my purse steals trash; 'tis something, nothing;
'Twas mine, 'tis his, and has been slave to thousands;
But he that filches from me my good name
Robs me of that which not enriches him,
And makes me poor indeed.

—*William Shakespeare (1564-1616)*

The Practical Aspects of Diving Medicine

John W. Morris, M.D.

One windy day some 300 years before the birth of Christ, a ship sank. It was of Greek origin, laden with cargo, and probably just coming into the port harbor of Kyrenia in Cyprus in the eastern Mediterranean Sea. The ship was unusual in that it sank in open water away from reefs. Discovered in 1967, it was found to be in a remarkable state of preservation with the wood in great part still intact after almost 23 centuries undisturbed at rest 100 feet on the bottom of the sea. This vessel is the only known preserved Greek ship from this time of history.

Under auspices of the National Geographic Society, University of Pennsylvania Museum and Department of Antiquities of the Republic of Cyprus, with the help of foundations and donors, excavation of this shipwreck was begun the summer of 1968 with Michael Katzev as director. It was my privilege to serve as expedition physician during the first part of the 1969 excavation program concerned with uncovering the partially buried craft, and recovering the cargo consisting of several hundred amphoras, over a score of stone grain mill blocks and numerous other objects of archaeological importance. The results of the expedition appear in the June 1970 issue of the National Georgraphic Society magazine.

As team physician, I was impressed with the unique medical needs required by the group of over 20 members, each of whom, including myself, performed two dives each day, worked at 100 feet of depth for 40 minutes in the morning and 30 minutes in the afternoon at excavation, then remained for an additional time of over half an hour at 20 and 10 feet depths for the purpose of decompression and ridding our bodies of accumulated nitrogen. A thorough knowledge of diving technique using scuba equipment was essential. Such a foundation is attainable through courses provided by the Y.M.C.A., British Sub-Aqua Clubs as well as instruction from qualified individuals.

Basic Medical and Physiological Problems

Knowledge of underwater physiology is an important and fascinating adjunct for the divers and the physician. Lanphier's classic paper can hardly be elaborated upon for completeness of the basic principles of underwater physiology as far as the physician is concerned; although recently the newer method of oxygen therapy under pressure for treating decompression sickness is proving of superior value. Indeed, a population, such as this group, provided considerable opportunity for observation and experimentation by the interested hyperbaric physiologist.

Basic medical and physiological problems, however, associated with and resulting from underwater diving have in great part been extensively investigated. We know the narcotic effects of nitrogen at depths beginning at 3 atmospheres of pressure. We know much of the physiology of nitrogen and how it can come out of solution causing "the bends" by forming bubbles which cause pain and injury in the joints and ends of the bones, and of the "chokes" when these bubbles appear in the pulmonary vascular bed, and also of the transient and sometimes permanent neurological deficits when these bubbles occur within the spinal cord or peripheral nerves. We also know the principles of decompression to prevent these and other phenomena from occurring and we know the methods of best treating these disorders on those, hopefully few, instances when they do occur. We know how to recognize air emboli resulting from an over-expanded lung. The alert physician knows the principles of artificial respiration, mouth-to-mouth resuscitation and extrathoracic massage. As essential as this knowledge is, nothing can be superior to the insurance that it will not be needed. The primary role of the physician is to maintain the optimal health of all individuals to result in the fewest number of lost diving hours due to accidents or disease. From a personal health standpoint, from an economic standpoint, from any standpoint, prevention of an injury or serious illness is far better than the best treatment any physician can offer.

Good rapport with all participants is helpful. Members of the group were encouraged to "see the doctor" about medical problems regardless of how trivial in order that any potentially serious disorder could be "nipped in the bud." All par-

ticipants had some training in underwater diving. Questionnaires were sent to them to obtain information related to past history, allergies, special medical needs or other trouble spots. Tetanus, poliomyelitis and smallpox vaccinations were required, but typhoid, paratyphoid, diphtheria and yellow fever immunizations were considered optional. Arrangements for medical consultations and hospitalization were made at the 40-bed infirmary in the town of Kyrenia, as well as at the larger Cyprus Mines Corporation Hospital about an hour or so away. It is essential to plan ahead for that broken femur or severe enteritis which fortunately never seems to occur, unless no provisions have been made to handle it when it does.

Equipment and Supplies

The shipwreck was located a little less than a mile out from the harbor of Kyrenia—a ten minute ride by boat. Directly over the site was stationed the barge, a rather massive hulk of a canvas-roofed platform 52 feet long and 26 feet wide. Toward one end were located the high-pressure air compressor (2500 p.s.i.) for filling the scuba tanks, low-pressure compressor (100 p.s.i.) with volume tanks and reserves for furnishing air for regular and emergency hookah-breathing apparatus, decompression chamber and the underwater plastic "bubble" or "telephone booth" on the ocean floor. The intakes for these compressors were located well above the roof and upwind from the exhaust to insure that no carbon monoxide or other noxious gases would be introduced into the air supply. The exiting compressed air was filtered through activated charcoal to insure that the air supply would be free of oil and other petroleum products. A third air compressor provided unpurified air at relatively low pressure to power the 50 feet long "airlifts" or suction devices on the ocean floor used to remove debris from the excavation site.

The four-man decompression chamber looked somewhat like a gigantic hot water heater turned over on its side. One half was filled with compressed air; the other, separated by an air-tight door, was at outside atmospheric pressure. In the event of decompression sickness, the afflicted patient and the physician would enter the first part of the chamber. The valve controlling the flow of air between the two halves of the chamber could be turned internally or externally so that the first part of the chamber could be compressed. When the pressure became equalized, the door between the two chambers was opened and the doctor and patient could enter the second part of the chamber. The air-tight door between the two chambers could then be shut and the pressure within the inner chamber further increased to optimal limits. Pure oxygen for the victim was supplied externally through a face mask. The recently developed time tables of alternate breathing of oxygen and air were followed with inside pressure equivalent to 60 feet of depth. A medical kit, including injectable phenobarbital for oxygen toxicity, was kept permanently in the inner chamber. Injectable tranquilizers, analgesics and bandages were also kept there in case of need for them. A small urine receptacle was included since the time schedule for decompression using this method could sometimes last as long as six hours.

Due to our rigid utilization of the standard U.S. Navy decompression tables with a safety factor of added time and diving depth, no cases of decompression sickness occurred and the decompression chamber simply stood by as good insurance for ready treatment.

Medical Needs

Basic medical needs were anticipated. Diphenoxylate hydrochloride with atropine sulfate (Lomotil, Searle) for non-specific self-limiting enteritides was most effective. An occasional anal-



The airlift, or suction device, was used to remove debris from the sunken vessel.

gesic such as aspirin or A.P.C.-barbiturate combination (Fiorinal, Sandoz) was most effective for general needs. A barbiturate combination (Carbrital, Parke-Davis) provided reliable sleeping medication but it was rarely used since after a full day's activity one was quite receptive to sleeping. A supply of sulfisoxazole (Gantrisin, Roche) ampicillin (Amcill, Parke-Davis) and penicillin was kept on hand to dispense when antibiotics were needed.

The most frequent medical needs concerned the nose, throat, ears and paranasal sinuses. Inasmuch as the rigid or semi-rigid air-containing spaces of the body, such as sinuses and middle ear, are subjected to considerable pressure, it must be equalized with environment pressure at various depths. A long-acting antihistimine-decongestant combination (Dimetapp Extentabs, Robins) was taken prophylactically by personnel who had difficulties with sinus congestion or "clearing the ears" (allowing air to enter the middle ear via the eustachian tubes). The divers were encouraged to "clear the ears" as easily and forcelessly as possible in order to minimize the possibility that throat bacterial flora would pass into the eustachian tubes and produce middle ear infection. In severe cases of sinus or eustachian tube congestion preventing easy pressure equalization, oxymetazoline nasal spray (Afrin Nasal Spray, Schering) was consistently effective.

Another effect of pressure is associated with tooth pain. Occasionally if a small amount of air is trapped in the cavity beneath the filling, marked changes in external pressure produce pressure upon this potentially compressible air space. Such changes may be reflected in severe pain by stimulation of the nerve supplying that tooth. Fortunately, members of our group had no such difficulties.

Otitis externa was frequently present. If mild, the ear was examined twice daily and no treatment given except for a drop or so of otic solution (Auralgan, Ayerst) and occasionally a cotton pledget for ear discomfort. The popular use of alcohol drops was not usually advocated since it tended to dissolve the natural cerumen which seemed to provide some protection from the seawater. If the ear infection was severe or failed to clear up in 24 to 48 hours, diving activities were suspended for a few days and systemic antibotic therapy instituted.

Accurate and complete medical records were essential. Accident-prone individuals could be recognized and pattern of illnesses or accidents readily determined. The use of decongestant tablets or sprays was on an "as needed" basis and their frequency of use was not recorded.

Physical Trauma

Causes of potential physical trauma were constantly sought. Only once was there a cut of sufficient magnitude to require sutures. It was an interesting observation that superficial cuts among divers healed by granulation and not by primary repair. Even a relatively superficial laceration was extremely slow to heal and frequently would leave a scar. Presumably, such healing is due to the fact that the relatively hypertonic seawater crenates the new fibroblasts or otherwise destroys them and prevents the usual healing process from taking place. Cuts on the face or head had to be clearly followed and avoiding the seawater for several days was necessary to prevent a cosmetically poor result. Disposable rubber gloves were useful in protecting hand injuries, while still not hampering the diver in his duties. Aerosol dressing spray (Aeroplast Dressing, Parke-Davis) on cuts elsewhere on the body showed promise as a protective barrier while the diver continued to dive.

The only accident of serious potential occurred when a diver's face became lodged in the underwater suction device. Fortunately, he was promptly extracted and brought to the underwater "telephone booth." After a moment of recovery and replacing his face mask, he surfaced with some help and sustained only severe edema of the right periorbital tissues and a rather substantial subconjunctival hemorrhage. Immediate application of ice minimized further swelling and ophthalmic sulfisoxazole (Gantrisin Ophthalmic, Roche) t.i.d. forestalled eye infection. He was able to resume diving in ten days.

The ruptured drum is a potentially serious injury and cessation of diving for at least ten days to two weeks is mandatory. Introduction of cold seawater into the inner ear is likely to cause vestibular stimulations with nausea, dizziness and balance disorientation. Needless to say, this could have serious sequelae under water. Furthermore, with contamination by seawater, and being subjected to substantial pressure changes, the drum will be slow to heal. Treatment is conservative. Drops are not used. Systemic antibiotics are sometimes recommended prophylactically but are usually not needed.

Marine life including plants and animals posed no particular hazards. On rare occasions an eel

was sighted. This fish is capable of inflicting a substantial bite when provoked but generally eels prefer the privacy of their caves. Dogfish and stingrays were said to exist in the area but they posed no serious threat. Stone-fish were never seen. These fish have been known to produce severe injury. Their spines release a neurotoxin upon contact. Fire coral was not found, nor were jelly fish, but diphenhydramine (Benadryl, Parke-Davis) was kept on hand to treat injuries from these sources.

Sunburn was not a serious problem. The canvas roof of the barge offered sufficient protection from the sun, but any one of a variety of sunburn lotions were available to prevent and treat mild cases.

The local medical facilities were not needed. This was due, in part, to the fact that personnel not only were basically in good health but also were alert and mature individuals who, by and large, were careful and sensitive to the possible causes of injury. They were encouraged to see the physician in all cases of suspected infectious diseases.

The work-load was distributed so that all were insured of adequate rest. The day began with breakfast at 6 a.m. Diving was from 7 until 11:30; lunch and rest lasted until 2:30 p.m. when diving resumed.

After the day's work, around 6 p.m., there was relaxation before the evening meal. The delicious Cypriot brandy was sometimes a delightful adjunct in preprandial attitude orientation, but the use of alcoholic beverages during the day or late in the evening prior to a morning dive was strongly condemned. There seems to be a potentiating relationship between even a relatively small amount of blood alcohol and nitrogen in compressed air breathed at more than 2 or 3 atmospheres of pressure. In fact, the narcotic effect of the nitrogen in compressed air at as little as 60 feet of depth, popularly known as the raptures of the depths, is well documented.

Conclusion

Since Cousteau's development of the aqualung in 1943, scuba diving has opened the doors for man to explore the wonders of the world below the surface of the waters. As a source of recreation or as a tool for research, exploration, archaeology or salvage, scuba diving has become a vital part of man's present day activities, but with it exist potential hazards which the divers must learn to recognize and which the physician must know how to treat or prevent.

References and medical questionnaires are available from the author upon request.

The author wishes to acknowledge his appreciation to Dr. Tony Colabrese of Orlando, Florida, who served as team physician the last month of the summer expedition.

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The man who has nothing to boast of but his illustrious ancestors is like a potato; the only good belonging to him is underground.

—Sir Thomas Overbury (1581-1613)

The first and best victory is to conquer self; to be conquered by self is of all things the most shameful and vile.

—Plato (427?-347? B.C.)

Cystadenocarcinoma of Pancreas

Report of a Case

Ricardo J. Mitre, M.D., C. T. Montgomery, M.D., and Louis M. Sales, M.D.

Cystadenocarcinoma of the pancreas is a rare pathological entity. Lichtenstein in 1934 reported the first authentic case in America.[1] Cullen et al reported 17 cases from 2,400,000 admissions to the Mayo Clinic.[2] The most recent world literature review by Becker et al documented 65 cases.[3] Pancreatic cystadenocarcinoma appears to be about one half as common as the benign cystadenoma. The age range varies from 18 to 76 years with approximately two thirds under age 50. The entity is three times more common in the female and usually found in the body or tail of the pancreas.[3,4]

Abdominal pain in the left upper quadrant or epigastrium associated with weight loss are the most common symptoms. A frequent sign is a palpable mass in the left upper abdomen.[5]

Total surgical excision, if possible, is the best treatment since cystadenocarcinoma of the pancreas is often encapsulated and usually a slow growing tumor.[6,7] Unresectable tumors may be treated by internal drainage (cystojejunostomy).[8]

Report of Case

This 60-year-old while female was admitted to Baptist Memorial Hospital with a history of recurrent left upper quadrant and epigastric pain of two weeks' duration. The pain was described as coming on shortly after a meal, persisting for a half hour to an hour at a time, colicky in character, and only partially relieved by taking food or alkali. There was some associated nausea but no hematemesis, melena, diarrhea, bloody or clay colored stools. During the few weeks prior to admission, the patient had noticed some mild exertional dyspnea and some weight loss. She gave a history of episodes of similar pain over the preceding ten years, which had gradually increased in duration, severity and frequency. Findings from the remainder of the systems' review were essentially negative. Past history revealed a hysterectomy for fibroid tumor 20 years prior to this admission. Physical examination revealed a large, firm, 12 x 12 cm. mass palpable in the left upper quadrant of the abdomen. The mass moved with respiration and was nontender and nonnodular. The remainder of the physical examination showed no significant abnormalities. Laboratory studies in the hospital included chest x-ray, electrocardiogram, stool samples, urinalysis, erythrocyte sedimentation rate, LE preparation, VDRL, direct and indirect Coombs' test, blood count, bleeding and clotting time, prothrombin time, platelet count, gastric analysis, serum lipase, PBI, T-3, electrolytes, lipoprotein, electrophoresis, A/G ratio, bilirubin, alkaline phosphatase, LDH, and SGOT which were all within normal limits. The intravenous pyelogram revealed a curvilinear calcification in the left upper quadrant of the abdomen (Fig. 1) and the upper GI series showed a medial displacement of the stomach.

Operative procedure.—A left transverse upper abdominal incision revealed a cyst attached to the tail of the pancreas. Removal of the spleen was necessary to mobilize and free the cyst which was removed completely intact.

The patient's hospital course was uneventful and she was discharged for follow-up on the ninth postoperative day.

Gross Pathology

The cyst located in the tail of the pancreas measured 15.5 x 11 x 9 cm. and had a smooth external surface with palpable areas of linear hardness. Upon sectioning, a unilobular, partly solid, partly cystic cavity containing approximately 600 cc. of brown, colloid, jelly-like material was found. This material gave a positive benzidine test. The wall thickness varied from 0.1 to 0.4 cm. and contained apparent spicules of calcium (Fig. 2).

Histopathology

The wall of the cyst was composed of fibrous connective tissue and vascular structures. Chronic inflammatory cells and linear calcification were noted. The inner surface of the wall was lined by columnar epithelium with focal areas of papillary, glandular structures which protruded into the lumen (Fig. 3). These structures showed variation in size, irregular formation, loss of polarity, bridging and mitotic activity without apparent invasion of the wall (Fig. 4). Areas of necrosis and hemorrhage were seen within the neoplastic formations. Focal areas of normal appearing pancreatic ductal islet and acinar tissue were also seen. The lumen contained an amorphous material with areas of cholesterol clefts and hemosiderin-laden macrophages.

Discussion

Abdominal pain with associated weight loss and palpable mass in the left upper abdomen were the presenting symptoms and signs, similar to those reported by others. The important facts in this patient's history were repeated abdominal complaints for the preceding ten years and absence of preoperative trauma or evidence of pancreatitis. These features suggested the possibility of neoplasia.[2]



Fig. 1.—Curvilinear calcification in left upper quadrant of abdomen (IVP).

A most interesting feature of this lesion was the roentgenographic finding of capsular calcification. This is reported in about 10% of cases.[3] Curvilinear calcification in the left upper quadrant of the abdomen might also suggest calcified adrenal cyst, pancreatic pseudocyst, calcified splenic infarction or calcified mesenteric cyst.

The histological findings of benign as well as malignant appearing areas suggest malignant de-

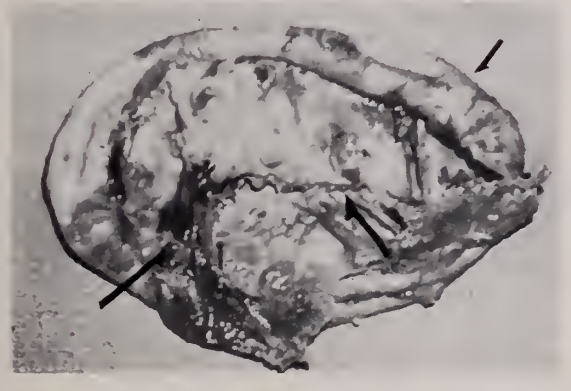


Fig. 2.—Cross section through cyst showing smooth external surface (short arrow), calcified spicules (medium arrow) and area of sold tumor with hemorrhage (large arrow).

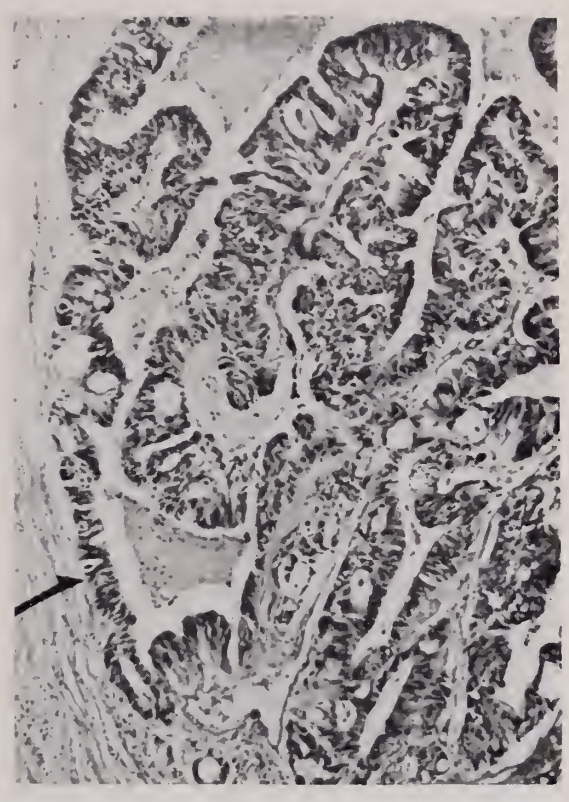


Fig. 3.—Inner surface of wall of cyst lined with columnar epithelium (arrow) and focal area of papillary, glandular structures protruding into cyst lumen (hematoxylin and eosin, X134).

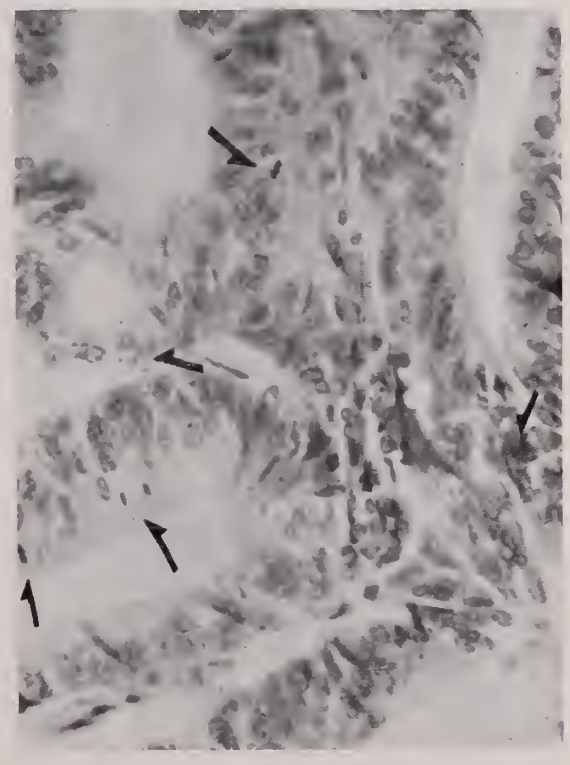


Fig. 4.—Higher magnification of glandular structure showing multiple mitosis (arrows) and loss of polarity (hematoxylin and eosin, X620).

generation from benign cystadenoma to cystadenocarcinoma. This transformation has been suggested by the case reports of Lichtenstein, Speese, McWhorter, Friedenwald, Young and Probstein.[1,9-13]

The epithelial lining in the case did not deviate from that seen in the normal pancreatic duct except for variable degrees of cellular atypia in the malignant areas. This fact supports the origin of cystadenoma and cystadenocarcinoma in the ductal epithelium as discussed by Glenner.[14] This author, along with Lichtenstein[1] and Benson,[15] considered the tendency to proliferate in such a fashion as to produce papillary projections into the lumen of the cyst as indicative of neoplastic activity.

Summary

Cystadenocarcinoma of the pancreas is reported in a 60-year-old white female with a preoperative roentgenographic finding of curvilinear calcification in a left upper quadrant mass of the abdomen. The theory of the origin of cystadenocarcinoma of the pancreas arising in the ductal epithelium is commented upon briefly.

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It is said that a river becomes crooked, following the line of least resistance. So does man.

Better to remain silent and be thought a fool than to speak and to remove all doubt.

In essentials, unity; in nonessentials, liberty; in all things, charity.

—Abraham Lincoln (1809-1865)

All higher motives, ideals, conceptions, sentiments in a man are of no account if they do not come forward to strengthen him for the better discharge of the duties which devolve upon him in the ordinary affairs of life.

—Henry Ward Beecher (1813-1887)

The Prognostic Value of EEG Sleep Recordings in Carbon Monoxide Intoxication

I. Karacan, M.D., G. Barnard, M.D. and R. L. Williams, M.D.

This case report suggests that electroencephalographic (EEG) sleep recordings may provide a new technique for prognosticating cases of acute carbon monoxide (CO) intoxication. Since the degree of severity of the clinical condition is often of little prognostic value in CO intoxication, the further utilization of sleep EEG's in these cases is indicated. Moreover, sleep EEG's may prove to be of further significance as a guide for rational clinical treatment.

Theoretical Background

Although man has long known that sleep is essential to the maintenance of physical and mental health and to satisfactory recovery from sickness or injury, the physiological basis behind its restorative function has remained a mystery. The discovery and classification of distinct, brain waveform patterns (sleep stages) with the electroencephalograph[1] put to rest the ancient notion that sleep is a state of physiological inactivity. On the contrary, it has been shown that human sleep is accompanied by cyclical periods of intense autonomic activity.[2,3] These periods have been designated the REM state since they are most overtly recognizable by rapid, conjugate eye movements.[2]

The sleep stages have been shown to represent a stable phenomena among individuals of a given age group.[4] Of the four sleep stages, classified by frequency and amplitude, stage 4 (slow wave, "deep" sleep) and stage 1-REM (fast wave accompanied by rapid eye movement) appear to be the most functionally significant. Experimental deprivation of either stage produces adverse psychophysiological responses.[5] Both stages[6,7] "rebound" following deprivation. Observations that intense autonomic activity accompanies REM[8-12] and that most dreaming occurs during this stage[3] has made its investigation theoretically compelling.

Noting that the "feedback" phenomena of adaptation, evolution, homeostasis, and learning are intrinsic to living processes, and that the brain in higher animals seems to be "programmed" to perform functions most relevant to current needs, Dewan[13] has likened the brain to a computer.

The observation[14,15] that REM percentage in animals is directly related to the complexity of the organism (the higher level, the more REM) indicates a phylogenetic development of REM. The finding of a predominance of REM in the human fetus[16] and in early infancy,[17] and of a subsequent decrease of the state with aging (approximately 24% in young adults) indicates an ontological development of this state. This evidence, when coupled with Dement's[7] finding of a "rebound" of REM to above normal baseline levels following selective REM deprivation, has led Dewan[13] to hypothesize that REM is "necessary and sufficient" for the organizational and integrational (programming) processes of the brain (the so-called "p-hypothesis").

The present case study, involving acute carbon monoxide poisoning which resulted in impaired cognitive and psychomotor functioning, provided an opportunity to test Dewan's "p-hypothesis." If REM is related to proper restorative "programming" of the brain, one would expect an elevation of REM percentage to foreshadow and accompany clinical improvement.

Case Presentation

A 24-year-old married, white female was admitted to her home-town hospital for emergency treatment immediately after an alleged suicide attempt (auto exhaust fumes). The patient's husband had reportedly found her unconscious in her automobile with the engine running in a closed garage, where she had remained for approximately one hour. The patient was still unconscious upon arrival at the hospital and, following emergency treatment and admission, she remained there for six days. Records from that hospital indicate an initial blood CO level of 30%. EEG on the day of admission was abnormal with posterior slow wave activity. Six days after admission, the patient began to behave inappropriately, appeared disoriented, and complained of speech and hearing difficulties and of severe headaches. On that day she was transferred to Shands Teaching Hospital, University of Florida.

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From the Department of Psychiatry, University of Florida College of Medicine and Shands Teaching Hospital, Gainesville.

Upon admission to Shands, the patient was lethargic and disoriented. Physical examination revealed no abnormalities except obesity and thyroid gland sensitivity. An endocrinological examination confirmed euthyroidism. An ENT consultation failed to reveal a basis for the patient's prior complaints of speech and hearing difficulties. An initial EEG was abnormal with diffuse paroxysmal slow-wave activity and excessive theta activity. An initial neuropsychological consultation revealed severe perceptual-motoric dysfunction, disorientation as to time and place and apparent visual difficulty. A series of tests were administered including the Rorschach, word association, simple object naming, and drawing, memory and reading tasks. Ability to draw resembled that of a three year-old. Response to Rorschach varied from gross errors to adequate performance. The patient could remember short series of words over a few minutes, but could not remember her home address, phone number, her children's names, nor could she describe her children. The patient could not name simple objects correctly nor could she write her name.

The patient was placed on an intensive treatment program including occupational therapy, group and individual psychotherapy. On the fifth week after admission to Shands, a full neuropsychological battery was again administered including a Rorschach test. At that time she was classified as a Borderline Defective (VIQ, 97; PIQ, 57; FIQ, 79). Wechsler Memory Scores (I, II; O, 105) were within normal limits. Drawings on command were normal. The Child's Form Board performance (RH, 15—7 errors; LH, 15—8 errors) and the Facial Recognition Test (only 5 of 12 faces remembered) scores were poor, as were the Bender-Gestalt scores. However, her vocabulary (Peabody and VIQ) was appreciably above that of persons functioning at her range of nonverbal abilities. The patient was discharged five weeks after admission and was able to resume normal functioning at home.

On the 15th week after admission, the patient again returned to the hospital for evaluation and neuropsychological testing. At this time she was functioning at the Dull Normal Range of Intelligence (VIQ, 97; PIQ, 69; FIQ, 84). Bender-Gestalt and Facial Recognition Tests were now within normal limits. Language writing and arithmetic ability had also improved as had her ability to plan and organize tasks on paper. Speed on tapping was adequate bilaterally but continued to show relatively depressed left-hand performance (RH, 48.0; LH, 36.75). Mild brain dysfunction persisted, however, in that PIQ scores reflected problems in solving nonverbal tasks under timed conditions.

By this time, the patient's EEG had improved with a return of normal background activity. However, the presence of one five per-second burst of low voltage spike and wave activity indicated a residual abnormality.

Sleep EEG Recording

The patient was referred for sleep EEG evaluation because of inability to sleep for more than one hour. The initial recording was made two nights after admission. Beginning on that night, an eight channel EEG and a two channel EOG were performed continuously throughout the night on three consecutive nights. The EEG machine was run at 15 mm. per second. The records were analyzed minute by minute using the Williams et al[4] modification of the sleep stage scoring method suggested by Dement and Kleitman.[3] On the first night, the patient slept approximately one hour and did not have any REM sleep. On the following two nights, she slept between four and five hours. REM was 14%-18% of total sleep time.

One month after admission, the patient was again evaluated for three consecutive nights, using the same procedures. At this time she slept seven to eight hours per night, which is her normal sleep time. Her REM was 30%-31% of total sleep time (significantly greater than the average amount for her age group which is about 24%).

A third series of sleep EEG's were monitored for three consecutive nights, 15 weeks after admission. REM ranged 30%-36% of total sleep time.

Discussion

It has been shown[4] that among subjects of the patient's age group, REM sleep occurs predominantly during the last third of the night. Moreover, if subjects are restricted as to the amount of sleep in a given night, they will sleep as if they were going to sleep for their usual total period.[18] Since REM normally occurs predominantly during the last third of the night, this phase may not appear in subjects when they sleep for abbreviated periods. Hence, the observed decreased levels of REM in the present subject during the initial three-night recording sequence is probably attributable to the decreased total sleep time on those nights.

Progressive, selective deprivation of REM has been shown[7] to result in the appearance of that state in shorter and shorter intervals as if a pressure for REM were building up. The subsequent resumption of a night of undisturbed sleep following such selective REM deprivation will result in a higher-than-baseline percentage of REM, as if in compensation for the previous loss. This "rebound" phenomenon has been interpreted as demonstrating a need by the organism for REM sleep.[7,19] Neither the mechanism of this rebound phenomenon nor the functional significance of REM to the organism are fully understood at this time. However, the appearance of a significant elevation in REM during the second and third three-night series of observations in the present patient is not likely the result of the "rebound" phenomenon. In the first place, the patient had not been selectively REM-deprived. In the second, even if she had been, the rebound would have been transitory and would not have persisted after a period of three months.

Hartmann[14] and Jouvet[15] have noted that most mammals exhibit a REM percentage similar to that found in man, whereas lower animals, which do not exhibit similar complexities in behavior, exhibit significantly less or a complete absence of REM. It has been estimated[20] that the human fetus (24-30 weeks gestational age) spends 100% of total sleep time in REM, and it has been demonstrated[17] that human infants spend 50% of total sleep time in REM, as contrasted with 20%-25% REM in adults. This evidence of a phylogenetic and ontological development of REM and the finding[7] of a "rebound" compensation phenomenon has led Dewan[13] and Greenberg and Dewan[21] to hypothesize that REM is related to proper organization and integration ("program-

ming") functions of the brain, i.e., that REM is necessary for adding new information to existing stores and structure of the brain.

In line with this hypothesis, one would expect to find that a brain-damaged patient who is improving will have a higher percentage of REM sleep than one who is not.[21] In support of this "p-hypothesis," it has been reported that a positive correlation exists between improvement in aphasia (a clearly existing programming situation) and increased levels of REM sleep.[21] Moreover, it has also been shown[22] among mentally retarded children that the lower the I.Q. score, the lower the amount of REM sleep.

The neuropathological changes which occur as a result of carbon monoxide poisoning have been described in detail in the literature.[23] Since the gradual restorative process which takes place during a successful recovery from brain damage caused by carbon monoxide poisoning is one requiring the integration and storage of new information (learning),[23] one would expect, consistent with the "p-hypothesis" of Dewan,[13] that a high REM percentage would foreshadow and accompany clinical improvement.

In the present patient, an unusually high REM percentage was observed throughout the course of improvement. This increase was at the expense of stage 2. Total sleep time was within normal range for this patient. The first observation of increased REM was noted four weeks after admission. At that time the neuropsychological consultation and clinical observations showed that only a marginal improvement had occurred since admission, and prognosis was guarded. The patient was then functioning as a Borderline Defective with perceptual-motoric dysfunction and poor orientation to reality. Memory and nonverbal reasoning abilities were significantly impaired. Therefore, this initial observation of increased REM preceded the manifestation of outward signs of clinical improvement.

At the time of the second sleep EEG series, 15 weeks after admission, REM was still substantially elevated. Clinically, the patient had improved and was resuming normal duties and responsibilities at home; however, she was still functioning intellectually within the Dull Normal Range. Psychological testing revealed continued difficulty in performing nonverbal tasks under timed conditions. Moreover, a waking, clinical EEG indicated residual abnormality by the presence of a burst of low voltage wave and spike activity. This second observation of increased REM therefore confirmed neuropsychological indications that reparation of the brain was still taking place.

The observations of a significant elevation in REM sleep, (1) at a time before any outward sign of clinical improvement was noticeable, and (2) when clinical observations and neuropsychological tests revealed that reparation had occurred and was continuing to occur, would tend to confirm the hypothesis that REM sleep is functionally related to the addition of new information to existing stores in the brain, and that an elevation in REM sleep precedes and accompanies the restoration of proper brain functioning.

Conclusion

It would appear that EEG sleep studies have prognostic value in foreshadowing clinical recovery in brain-damaged patients. Since there is no other known prognostic tool or laboratory test which can provide a clue to the clinical outcome in this type of patient, our findings suggest that EEG sleep studies might be particularly valuable.

There is still another implication from EEG sleep studies, and especially from the present case, regarding treatment of brain-damaged patients. Since it would appear that an elevation of REM sleep is related to restoration of brain functioning, hypnotic drugs and tranquilizers, which have been shown[24,25] to have a REM-reducing effect, should not be used indiscriminately in these patients. It would appear that these drugs might work contrary to the natural reparation processes of the organism and might indeed retard improvement.

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Sometimes it is said that man cannot be trusted with the government of himself. Can he then be trusted with the government of others?

—Thomas Jefferson (1743-1826)

If a man can write a better book, preach a better sermon, or make a better basket than his neighbor, though he build his house in the woods, the world will make a beaten path to his door.

—Ralph Waldo Emerson (1803-1882)

I'll study and get ready, and then maybe my chance will come.

—Abraham Lincoln (1809-1865)

Treating Anxiety and Depression in the Elderly

A Double Blind Crossover Evaluation of Two Widely Used Tranquilizers

Charles R. Beber, M.D.

Anxiety and depression in the geriatric patient is a serious and often chronic state which portends epidemic proportions as the numbers of our aged rise. Although anxiety and depression is difficult enough to treat in any age group, there are several factors which makes it even more difficult in the geriatric patient. The most obvious and self-evident factor is the general mental and physical deterioration found in many of our elderly. They are not good candidates for psychotherapy because their poor mental state is quite often a result of facing the reality of their environment. Moreover, the use of psychopharmaceuticals designed to alter their underlying perception of this environment often produces unusual or unpredictable results. Some of the newer psychopharmaceuticals, however, have shown promise in overcoming such problems.

A double blind crossover study was designed to determine how effective two of these preparations,+ one a combination of perphenazine (2 mg.) and amitriptyline (10 mg.)* and the other chlordiazepoxide hydrochloride (10 mg.),** were in the treatment of anxiety and depression in the ambulant elderly patient. These dosage strengths were relatively equipotent for this indication. The study was also designed to include statistical information on kinds and percentage of side effects and degree of seriousness in order to determine the weight of these factors in justifying these dosages for treating anxiety and depression in the aged.

A total of 63 geriatric patients in an institution for the aged were divided into two groups and assigned to treatment according to the following crossover design:

	No. of Patients	Period	Treatment
Group 1	32	I	perphenazine-amitriptyline
		II	chlordiazepoxide hydrochloride
Group 2	31	I	chlordiazepoxide hydrochloride
		II	perphenazine-amitriptyline

+ Supplied by Merck, Sharp & Dohme.
* Available as Etrafon (Schering) 2-10 mg.; Triavil (Merck) 2-10 mg.
** Available as Librium (Roche).

Following Period I, all patients received placebo for one week before being crossed-over to the second active treatment. The dosage ranged from one capsule per day to one capsule q.i.d., with most patients receiving the latter. Group 1 consisted of six males and 26 females; the ages ranged from 68 to 89 years with a median age of 80 years. Group 2 consisted of two males and 29 females; the median age was 80 years with ages ranging from 69 to 90 years.

Target or presenting symptoms were rated prior to therapy and at one-week intervals for a period of four weeks, at the end of which time patients were treated with placebo for a one-week period. Patients were then crossed-over to the second active compound and treated as before for another four-week period. The symptom rating scale was as follows:

1—None
2—Mild
3—Moderate
4—Severe

The evaluation of each symptom was based upon only those patients who presented that symptom at the start of active treatment. Since some of the patients did not present the same symptoms following the one-week placebo period as they had prior to treatment, Periods I and II were analyzed separately. Table 1 and 2 summarize these results. Statistically significant treatment differences are shown in the tables. Table 3 summarizes the mean symptom scores for those patients who presented the same symptom at the start of both Periods I and II. As shown in the table, the mean depressed mood score was statistically significantly lower for patients receiving perphenazine-amitriptyline than receiving chlordiazepoxide hydrochloride; however, the reverse was true for anxiety. Statistically significant treatment differences are shown in the table.

Response to therapy was rated at the end of each week of active treatment. The scoring scale appearing on the clinical form was as follows:

Table 1.—Mean Symptom Scores—Period I.

Symptom	Perphenazine-Amitriptyline No.	Initial	1 Week	2 Weeks	3 Weeks	4 Weeks	Chlordiazepoxide Hydrochloride No.	Initial	1 Week	2 Weeks	3 Weeks	4 Weeks
Anxiety	29	2.9	1.7	1.7	1.7	1.7	31	2.6	1.7	1.7	1.6	1.6
Agitation	22	2.2*	1.2	1.2	1.3	1.2	15	2.5	1.6	1.4	1.5	1.5
Insomnia	19	2.1	1.2	1.1	1.1	1.1	12	2.1	1.5	1.3	1.3	1.3
Depressed Mood	16	2.5	1.1*	1.2*	1.1*	1.2*	15	2.5	2.1	2.1	2.1	2.0
Despondency	13	2.4	1.2	1.2*	1.2	1.2*	17	2.3	1.7	1.6	1.5	1.6
Lethargy	9	2.2	1.9	1.7	1.7	1.7	10	2.1	2.1	1.8	1.7	1.7
Psychomotor Retardation**	3	2.3	1.3	1.3	1.3	1.3	1	2	2	2	2	2
Anorexia	11	2.1	1.5	1.5	1.3	1.3	7	2.3	1.4	1.4	1.4	1.4
Psychosomatic Complaints	18	2.6	1.7*	1.6	1.7	1.7	28	2.5	2.0	1.8	1.8	1.8
Conversion Symptoms**	3	2.7	2.0	2.0	1.2	1.2	0	—	—	—	—	—

* Statistically significantly lower mean score than chlordiazepoxide hydrochloride ($p < .05$).
** Not statistically analyzed.

Table 2.—Mean Symptom Scores—Period II.

Symptom	Placebo No.	1 Week	Perphenazine-Amitriptyline 1 Week	2 Weeks	3 Weeks	4 Weeks	Placebo No.	1 Week	Chlordiazepoxide Hydrochloride 1 Week	2 Weeks	3 Weeks	4 Weeks
Anxiety	30	2.6	1.7	1.7	1.7	1.7	29	2.7	1.3**	1.3**	1.4*	1.4*
Agitation	21	2.0	1.0	1.1	1.1	1.1	20	2.2	1.1	1.2	1.3	1.2
Insomnia	11	2.0	1.4	1.3	1.5	1.4	13	2.2	1.2	1.3	1.2	1.2
Depressed Mood	17	2.4	1.6	1.6	1.7	1.6	17	2.4	1.8	1.9	1.8	1.9
Despondency	21	2.3	1.3	1.2	1.3	1.4	15	2.3	1.3	1.3	1.3	1.3
Lethargy	9	2.3	1.3	1.2	1.4	1.4	9	2.1	1.7	1.4	1.4	1.4
Psychomotor Retardation†	2	2.5	1.0	1.0	1.0	1.0	1	2	1	1	1	1
Anorexia	9	2.0	1.3	1.4	1.3	1.2	6	2.0	1.0	1.3	1.5	1.2
Psychosomatic Complaints	29	2.6	1.8	1.9	1.8	1.9	19	2.5	1.8	1.6*	1.6	1.5*
Conversion Symptoms†	1	2	1	1	1	1	3	2.7	1.2	1.2	1.2	1.2

* Statistically significantly lower mean score than perphenazine-amitriptyline ($p < .05$).
** Statistically significantly lower mean score than perphenazine-amitriptyline ($p < .01$).
† Not statistically analyzed.

(Continued on page 37)



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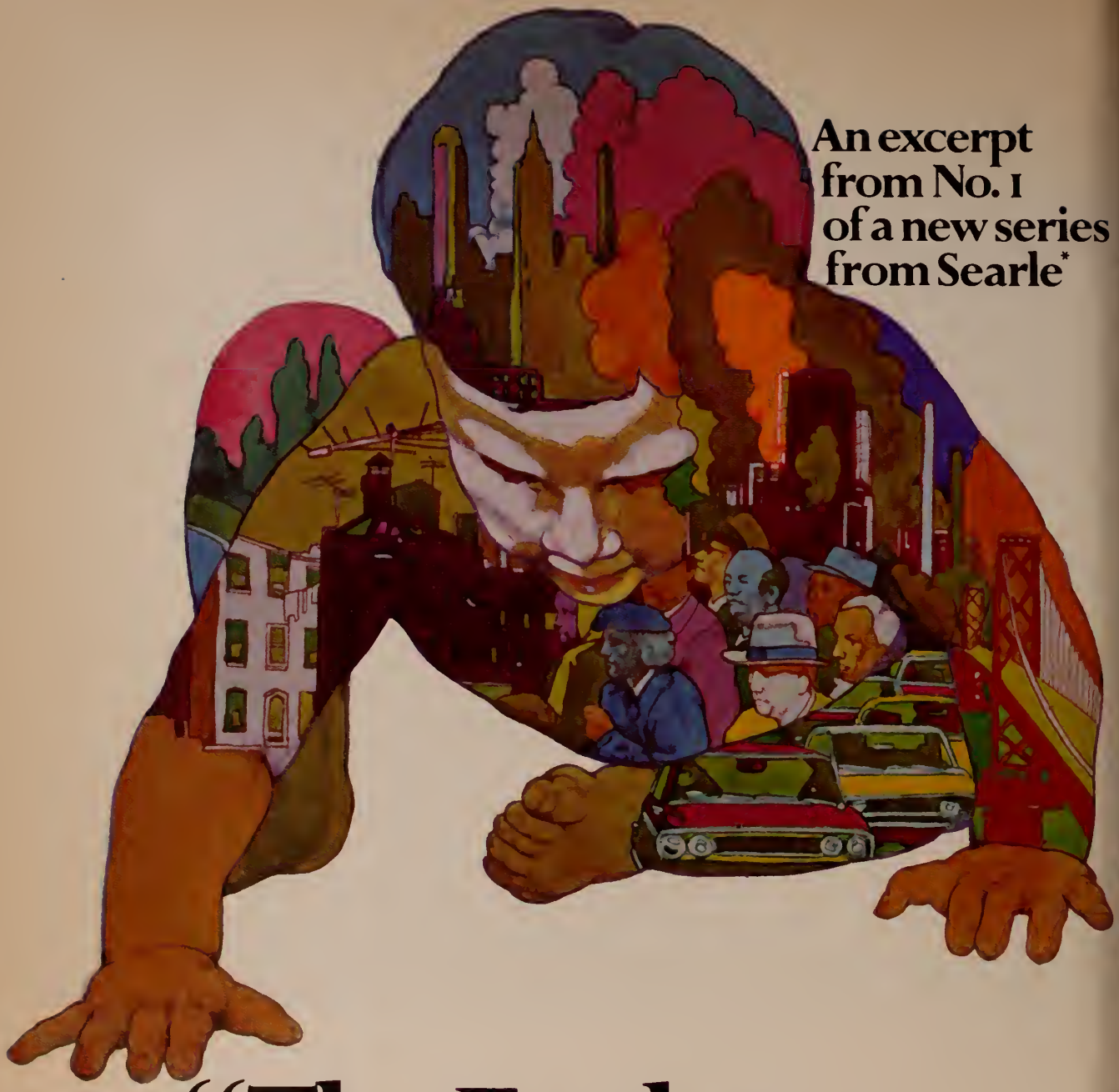


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Special note: Oral contraceptives have been marketed in the United States since 1960. Reported pregnancy rates vary from product to product. The effectiveness of the sequential products appears to be somewhat lower than that of the combination products. Both types provide almost completely effective contraception.

An increased risk of thromboembolic disease associated with the use of hormonal contraceptives has now been shown in studies conducted in both Great Britain and the United States. Other risks, such as those of elevated blood pressure, liver disease and reduced tolerance to carbohydrates, have not been quantitated with precision.

Long-term administration of both natural and synthetic estrogens in subprimate animal species in multiples of the human dose increases the frequency of some animal carcinomas. These data cannot be transposed directly to man. The possible carcinogenicity due to the estrogens can be neither affirmed nor refuted at this time. Close clinical surveillance of all women taking oral contraceptives must be continued.

Indication—Demulen is indicated for oral contraception.

Contraindications—Patients with thrombophlebitis, thromboembolic disorders, cerebral apoplexy or a past history of these conditions, markedly impaired liver function, known or suspected carcinoma of the breast, known or suspected estrogen-dependent neoplasia and undiagnosed abnormal genital bleeding.

Warnings—The physician should be alert to the earliest manifestations of thrombotic disorders (thrombophlebitis, cerebrovascular disorders, pulmonary embolism and retinal thrombosis). Should any of these occur or be suspected the drug should be discontinued immediately.

Retrospective studies of morbidity and mortality conducted in Great Britain and studies of morbidity in the United States have shown a statistically significant association between thrombophlebitis, pulmonary embolism, and cerebral thrombosis and embolism and the use of oral contraceptives. There have been three principal studies in Britain [1-3] leading to this conclusion, and one[4] in this country. The estimate of the relative risk of thromboembolism in the study by Vessey and Doll[3] was about sevenfold, while Sartwell and associates[4] in the United States found a relative risk of 4.4, meaning that the users are several times as likely to undergo thromboembolic disease without evident cause as nonusers. The American study also indicated that the risk did not persist after discontinuation of administration, and that it was not enhanced by long-continued administration. The American study was not designed to evaluate a difference between products. However, the study suggested that there might be an increased risk of thromboembolic disease in users of sequential products. This risk cannot be quantitated, and further studies to confirm this finding are desirable.

Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions medication should be withdrawn.

Since the safety of Demulen in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule the possibility of pregnancy should be considered at the time of the first missed period.

A small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The long-range effect to the nursing infant cannot be determined at this time.

Precautions—The pretreatment and periodic physical examinations should include special reference to the breasts and pelvic organs, including a Papanicolaou smear, since estrogens have been known to produce tumors, some of them malignant, in five species of subprimate animals. Endocrine and possibly liver function tests may be affected by treatment with Demulen. Therefore, if such tests are abnormal in a patient taking Demulen, it is recommended that they be repeated after the drug has been withdrawn for two months. Under the influence of progestogen-estrogen preparations preexisting uterine fibromyomas may increase in size. Because these agents may cause some degree of fluid retention, conditions which might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. In breakthrough bleeding, and in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In undiagnosed bleeding per vaginam adequate diagnostic measures are indicated. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. Any possible influence of prolonged Demulen therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving Demulen therapy. The age of the patient constitutes no absolute limiting factor, although treatment with Demulen may mask the onset of the climacteric. The pathologist should be advised of Demulen therapy when relevant specimens are submitted. Susceptible women may experience an increase in blood pressure following administration of contraceptive steroids.

Adverse reactions observed in patients receiving oral contraceptives—A statistically significant association has been demonstrated between use of oral contraceptives and the following serious adverse reactions: thrombophlebitis, pulmonary embolism and cerebral thrombosis.

Although available evidence is suggestive of an association, such a relationship has been neither confirmed nor refuted for the following serious adverse reactions: neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis.

The following adverse reactions are known to occur in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea during and after treatment, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post partum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals and mental depression.

Although the following adverse reactions have been reported in users of oral contraceptives, an association has been neither confirmed nor refuted; anovulation post treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption and itching.

The following laboratory results may be altered by the use of oral contraceptives: hepatic function: increased sulfobromophthalein retention and other tests; coagulation tests: increase in prothrombin, Factors VII, VIII, IX and X; thyroid function: increase in PBI and butanol extractable protein bound iodine, and decrease in T^3 uptake values; metyrapone test and pregnanediol determination.

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Table 3.—Mean Symptom Scores, Patients Presenting the Same Symptom for Both Treatments.

Symptom	No. of Patients	Perphenazine-Amitriptyline 1 Week	2 Weeks	3 Weeks	4 Weeks	Chlordiazepoxide Hydrochloride 1 Week	2 Weeks	3 Weeks	4 Weeks
Anxiety	59	1.7	1.7	1.7	1.7	1.5*	1.5*	1.5*	1.5*
Agitation	29	1.8	1.2	1.3	1.3	1.4	1.3	1.3	1.3
Insomnia	16	1.4	1.3	1.4	1.3	1.5	1.4	1.2	1.2
Depressed Mood	31	1.4**	1.5**	1.5**	1.5**	2.0	2.0	2.0	2.0
Despondency	27	1.3†	1.2	1.3	1.3	1.6	1.5	1.5	1.6
Lethargy	15	1.7	1.5	1.7	1.7	1.9	1.8	1.7	1.7
Anorexia	10	1.7	1.6	1.4	1.4	1.2	1.5	1.6	1.4
Psychosomatic Complaints	46	1.7	1.8	1.8	1.8	1.9	1.7	1.7	1.7

* Statistically significantly lower mean score than perphenazine amitriptyline ($p < .05$).
** Statistically significantly lower mean score than chlordiazepoxide hydrochloride ($p < .001$).
† Statistically significantly lower mean score than chlordiazepoxide hydrochloride ($p < .05$).

Table 4.—Mean Response to Therapy.

	Period I		Period II	
Time	Perph.-Amit. (29 Patients)	Chlordia. (31 Patients)	Perph. Amit. (31 Patients)	Chlordia. (29 Patients)
1 Week	3.6*	2.8	3.4	3.4
2 Weeks	3.6**	3.1	3.3	3.5
3 Weeks	3.6**	3.2	3.3	3.5
4 Weeks	3.6**	3.2	3.3	3.6

* Statistically significantly better than chlordiazepoxide hydrochloride ($p < .01$).
** Statistically significantly better than chlordiazepoxide hydrochloride ($p < .05$).

Table 5.—Mean Response to Therapy, Overall Analysis—60 Patients.

Time	Perphenazine-Amitriptyline	Chlordiazepoxide Hydrochloride
1 Week	3.5*	3.1
2 Weeks	3.4	3.3
3 Weeks	3.4	3.3
4 Weeks	3.4	3.4

* Statistically significantly better than chlordiazepoxide hydrochloride ($p < .01$).

Table 6.—Incidence of Side Effects, All Patients.

Side Effect	Period I		Period II	
	perph.-amit.	chlordiaze.	perph.-amit.	chlordiaze.
Drowsiness	8/32 = 25.0%*	23/31 = 74.2%	13/31 = 41.9%**	24/32 = 75.0%
Dizziness	2/32 = 6.3%***	14/31 = 45.2%	2/31 = 6.5%***	13/32 = 40.6%
Light Headedness	2/32 = 6.3%	8/31 = 25.8%	2/31 = 6.5%	5/32 = 15.6%
Weakness	1/32 = 3.1%	3/31 = 9.7%	0/31 = 0.0%	2/32 = 6.3%
Ataxia	1/32 = 3.1%***	10/31 = 32.3%	0/31 = 0.0%**	7/32 = 21.9%
Excitement	0/32 = 0.0%	0/31 = 0.0%	1/31 = 3.2%	0/32 = 0.0%
G.I. Upset	1/32 = 3.1%	0/31 = 0.0%	1/31 = 3.2%	0/32 = 0.0%
Dry Mouth	4/32 = 12.5%	1/31 = 3.2%	8/31 = 25.8%	1/32 = 3.1%†
Extrapyramidal Signs	0/32 = 0.0%	0/31 = 0.0%	1/31 = 3.2%	0/32 = 0.0%
Hypertension (Transient)	0/32 = 0.0%	1/31 = 3.2%	0/31 = 0.0%	0/32 = 0.0%
Patients with Side Effects	12/32 = 37.5%***	25/31 = 80.6%	18/31 = 58.1%	24/32 = 75.0%

* Statistically significantly lower incidence than chlordiazepoxide hydrochloride ($p < .001$).
** Statistically significantly lower incidence than chlordiazepoxide hydrochloride ($p < .05$).
*** Statistically significantly lower incidence than chlordiazepoxide hydrochloride ($p < .01$).
† Statistically significantly lower incidence than perphenazine-amitriptyline ($p < .05$).

1—None
2—Worse
3—Fair
4—Good
5—Excellent

For analysis purposes, the scale was altered as follows:

1—Worse
2—None
3—Fair
4—Good
5—Excellent

The mean response scores are summarized in Tables 4 and 5. Table 4 shows the results obtained from separate analysis of the two treatment periods, and Table 5 summarizes the overall analysis results. Statistically significant treatment differences are shown in the tables.

Table 6 summarizes the incidence of side effects for Periods I and II. All patients are included. Statistically significant differences are shown in the table.

Overall, 27 of the 60 patients (45.0%) reported side effects while receiving perphenazine-amitriptyline and 46 (76.7%) reported side effects while receiving chlordiazepoxide hydrochloride. This difference was significant at the $P < .001$ level.

Comments

Careful analysis of the data (Tables 1-6) reveals that both drugs were approximately equal in relieving the symptoms of moderate anxiety and depression in this group of geriatric patients, three patients were lost to the study due to intervening illnesses. However, the data did establish that a drug combination of perphenazine and amitriptyline which is so often reserved or recommended for more serious anxious or mentally depressive states are no more apt to cause side effects in the geriatric patient in appropriate doses than those drugs usually recommended for more moderate conditions. In fact, based on our results, the opposite seems true. Chlordiazepoxide hydrochloride had a side effect incidence of 76.5% while the perphenazine-amitriptyline combination presented only 45.0%. Moreover, the side effects seen with the phenothiazine combination were generally benign and well tolerated in the elderly while those seen with chlordiazepoxide hydrochloride were side effects of greater risk to patients of this age. The interesting results achieved in this study warrant further analytical studies of this nature to confirm or elaborate on our conclusions.

Summary

In order to determine the effectiveness of two widely used psychopharmaceuticals and the possible degree of seriousness of their side effects in the elderly, 63 geriatric patients with anxiety and depression were divided into two groups and treated with either perphenazine-amitriptyline or chlordiazepoxide hydrochloride for four weeks. After a rest period of one week with placebo, the drugs were then crossed-over for another four weeks. The ensuing results indicated that both drugs were effective in anxiety and depression. The perphenazine-amitriptyline proved superior in depression whereas the chlordiazepoxide hydrochloride demonstrated some advantage in anxiety. However, in relation to side effects the percentage of patients suffering from side effects was greater with the chlordiazepoxide hydrochloride than with the perphenazine-amitriptyline combination.

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Erysipeloid Infection of Digits

Timothy A. Lamphier, M.D.

Failure to recognize erysipeloid infection of the digits results in needless incision and drainage and complicates treatment because of the resultant mixed-infections that ensue. Consequently misdiagnosis results in great economic loss.

Erysipeloid, first described in 1884 by Rosenbach, was known to be an acute cellulitis caused by the bacillus of a swine erysipelas. In the series of cases to be described, it occurred mostly in meat handlers and fish workers. It is sometimes referred to as "fish poisoning." It may also occur after handling shrimp, decayed vegetables or animal matter, and crabs.

The unique characteristics of the cellulitis are such that it should automatically deter any considerations of surgery. The disease is limited for the most part to the hand or fingers. In the cases to be described the infection was confined to a single digit. In the northern United States the disease normally occurs during the summer months, i.e., June, July or August. However, it is prone to appear at any time in semitropical areas. Erysipeloid will occur frequently among commercial fishermen and is often misdiagnosed as pyogenic cellulitis. It is quite resistant to treatment and the acute infection will last on an average of five to six weeks. The diagnosis is important to the industrial physician because of the causal relationship to fish handlers and the prolonged period of treatment required. In certain environments the organism persists in the soil as a harmless saprophyte but it has the ability to change suddenly to a pathogenic parasite.

Bacteriology

The organism occurs in three strains, namely the swine, human, and mouse. Initially it is a gram positive coccoid and then later becomes a gram positive bacillus. The incubation period following an injury is from one to five days.

Bacteriologic Findings

In 1909 Rosenbach isolated the organism from a human erysipeloid infection. The organisms are described as "slender rods 0.2 to 0.3 by 0.5 to 1.5 occurring singly or in chains with a tendency to produce long filamentous forms." It is nonsporogenous, nonencapsulated, and nonmobile. It takes a positive gram stain and is microaerophilic. The colonies on various media are minute (0.1 Gm.), round, convex or amorphous and water-clear or glistening on blood agar plates. It is prevalent in decomposing nitrogenous substances. The organism is nonmobile and nonspore forming.

Pathology

There is usually a history of trauma consisting of either laceration or abrasion. The infection appears first on one digit and in this series it remained localized to one digit. Hemorrhagic vesicles appear with or without lymphangitis and lymphadenitis. Joint stiffness is a common characteristic and arthritic symptoms may continue even after skin involvement has subsided. A relapse occurred in one instance for a short period of time (3 weeks). Rosenbach described the lesions as slowly progressing, sharply defined, slightly elevated with dark, violaceous and almost livid-red zone which develops around the site of inoculation.

At the onset, the cellulitis is bluish-red with occasional areas of hemorrhage. Later central areas of clearing appear. This stage is followed by a migrating tendency. The most outstanding characteristic of the lesion is the purplish-red color of the erythema. It often gives the impression that fluid has been injected intracutaneously. Whenever digits are involved, the intense swelling makes joint-motion impossible. Actually in humans there are three well defined categories: (1) a mild localized cutaneous form which is known as Erysipeloid of Rosenbach; (2) a severe generalized cutaneous form, and (3) a septicemic form with or without cutaneous involvement and sometimes complicated by specific endocarditis.

As stated previously the symptoms appear one to five days following injury and the eruption consists of reddish-purple, somewhat tense, slightly elevated, sharply demarcated plaques. These plaques show a tendency to centrifugal spread with central clearing. Suppuration does not occur.

Diagnosis

The diagnosis of Erysipelothrix infection may be established by rising agglutinin titers in the serum of the patient. Positive reactions with the swine erysipelas antigen in titers of 1:50 and upward are suggestive of probable infection with

Erysipelothrix rhusiopathiae and a probable diagnosis of erysipeloid.

The most outstanding subjective symptom is pain which is either aching, burning or of a throbbing nature preventing the patient from sleeping. The disease will occur frequently in abattoir workers and retail butchers.

It is possible that when the infection involves digits, periostitis and necrosis of bone will occur.

Treatment

Treatment consists for the most part of heat and rest with marked elevation of the involved extremity to promote adequate drainage. Digits may be splinted in position of function. Intensive penicillin therapy is recommended as a major part of treatment.

In the table, three of the patients described worked in meat packing houses and the remaining seven were fish handlers. Of this latter seven, one was a physician who lacerated a digit while cleaning fish. In all instances infection first appeared in one digit. In one instance both hands were involved. In this series there was no associated lymphadenitis or lymphangitis nor were there any constitutional or arthritic symptoms other than local involvement of adjacent joints.

The most significant fact regarding these patients is that in 50% of them the condition was not originally diagnosed properly. It is obvious that failure to recognize these infections as nonsuppurative prolongs to considerable degree the duration of the disease. This group included a physician who insisted that a colleague carry out surgery although he had been warned of the uselessness of such treatment. A surgical procedure such as incision and drainage practically doubles the duration of the disease.

Conclusions

The importance of proper diagnosis of erysipeloid infection in man has been emphasized. Surgery is definitely contraindicated and greatly prolongs and complicates convalescence.

The classical appearance of a violaceous, maculopapular, dusky lesion of a finger or hand should make one suspicious of erysipeloid especially when extreme swelling, stiffness, and tender-

Analysis of Cases

Patient	Age	Occupation	Treatment	Agglutination Test	Spread of Infection	Duration of Disease
1	42	Meat Packer	Hot packs Penicillin Elevation Splinting	Pos 1:50	Localized to digit	4 weeks
2	45	Meat Packer	Incision & Drainage	Not carried out	Localized to digit	7 weeks
3	56	Fish Handler	Hot packs Penicillin Elevation Splinting	Not carried out	Localized to digit	5 weeks
4	53	Meat Packer	Incision & Drainage	1:60	Localized to digit	8 weeks
5	53	Physician	Initially Incision & Drainage	Not carried out	Localized to digit	10 weeks
6	65	Fish Handler	Incision & Drainage	Not carried out	Localized to digit	7-8 weeks
7	45	Shrimp Handler	Incision & Drainage	1:80	Localized to digit	6-7 weeks
8	51	Fish Handler	Penicillin Elevation Hot packs Splinting	1:60	Localized to digit	3 weeks
9	47	Fish Handler	Penicillin Elevation Splinting Hot packs	Not carried out	Localized to digit	3-4 weeks
10	50	Fish Handler	Penicillin Hot packs Elevation Splinting	Not carried out	Localized to digit	4 weeks

ness of nearby joints are included. A burning and throbbing pain is also characteristic.

Intensive penicillin therapy with splinting of digits in position of function is of paramount importance in treatment. Warm soaks should be advocated with constant elevation of the extremity.

Erysipeloid is characterized by poor response to treatment, severity of symptoms, and a prolonged period of convalescence.

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editorial comment

JOSEPH FARRINGTON, M.D.

Erysipeloid of Rosenbach

Dr. Lamphier has done Florida medicine a great service by calling our attention to an infectious process first described by Morrant Baker[1] under the title "Erythema serpens." Rosenbach later gave it the name "erysipeloid" and isolated a microorganism of the genus Cladothrix.

This infection can invariably be traced to contact with animals, fish, crustacea, dead matter of plant and animal origin, or matter derived from animals such as hides, pelts, bone, or manure.

In view of Florida's enormous cattle industry and widespread commercial and sport fishing (often in allegedly contaminated or polluted waters), it is remarkable that Erysipeloid of Rosenbach has not been seen more frequently. In the past 23 years, I have encountered perhaps a half dozen cases. In a phlegmatic, afebrile patient the infection probably passes unnoticed or may be missed by the uninitiated physician. The dermatologist usually depends for diagnosis on a history of injury; the characteristic violaceous or purplish-red color of a superficial cellulitis in a typical location.

Whether encountered by the emergency doctor, industrial surgeon, or family physician, it should be remembered that treatment is usually medical rather than surgical. This infection usually responds to antibiotic therapy and wet dressings locally. Suppuration does not occur; surgical intervention by incision and drainage or debridement is not indicated. In the future, Dr. Lamphier's lucid description will make this condition more easily recognized and more sensibly managed.

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Nasal Airway Physiology

R. M. Holloway Jr., M.D.

As well as being unique to the human, the nose has been described as a barometer of many personality traits. Albert Cinelli wrote that a thin, expanded appearance of the nasal alae indicates cleverness. If the alae are thick and puffy, dullness of the intellect is indicated. Continual vibration of the nostrils during conversation denotes nervousness, independence, energy and high mentality. Further classifying nasal contour, Cinelli expressed the opinion that the breadth of the African nose signifies physical endurance but also connotes lack of initiative. Narrow nostrils suggest nervousness and delicate health and are contrary to longevity.[1] Although few people would agree absolutely with these observations, all agree that the nose is a definite contributor to facial expression.

Aside from the cosmetic and aesthetic qualities, the nose is important for at least five physiological functions: sense of smell; tempering, filtering and moisturizing air before it enters the lungs; altering the voice quality; ventilating the accessory sinuses and complementing the sense of taste.[2,3]

This paper will be confined to nasal physiology concerned with transporting air and preparing it for the lower respiratory system. The normal nose secrets one liter of water per day, moisturizing to approximately 90% humidity the 10,000 liters of air passing through it. For this function nasal anatomy can be divided into three separate areas: the nares, vestibule and main nasal vault.[1,4]

Physiology and Function

The nares are usually about one centimeter in diameter and are widely patent. They direct the air inlet so that normally air enters the nostril in an upward direction.[4] A collapsing nostril obviously increases nasal resistance to inspired air. The cartilagenous support of the vestibule is dependent upon the cartilage strength, muscle attachments of the nasal cartilages, and septal alignment. This area is the valve of the nose. In this area the cilia become pronounced and as nasal secretion is produced it is swept in a posterior direction. It should be remembered that surgical scars and crusts interrupt this normal flow pattern.[5] The bony vault or third anatomical division is constantly in a state of changing size due to the engorgement and depletion of the nasal mucosal blood supply.

Inhaled air has a laminar flow upward through the nares, across the vestibule and along the midportion of the nasal vault at the level of the middle meatus. As inspiration becomes more forceful, the air pattern takes a more upward curvature before descending to the choanae. Thus sniffing increases the sensation of smell since air is forced higher during this increase in transnasal pressure.[1,4]

Proetz demonstrated years ago that certain anatomical deviations were more important than others in affecting the inspiratory air currents. For instance, amputation or shrinking of the middle turbinate had no effect and yet small nasal aperture abnormalities or septal deviations created pronounced changes in laminar flow. Laminar flow is now thought to be surrounded by small eddy currents which are created near its edges. These currents are important in placing debris in repeated contact with the mucosal blanket, thus aiding the filter system.[6]

Moisture is essential to nasal function for without it the mucosal blanket is destroyed and the cilia die. Severe eddies caused by anatomical abnormalities of the vault or septum create drying and secondary cilia damage. Crusting and accumulated debris lead to bacterial foci and therefore to further cilia and goblet cell damage. Finally, irreversible changes occur in the tissue and the healthy moist, ciliated mucosa becomes similar to squamous epithelium, causing the irreversible changes of atropic rhinitis.

Determining Nasal Pressure

In the past decade there has been renewed interest in studying the physiological basis of nasal disease. Techniques have been developed to monitor nasal mucosal temperature and blood flow, mucous pH and airway patency.[6] Airway patency is perhaps the most subjectively important and is the most studied of the parameters. Many methods have been used to evaluate how much air passes through the nose and the relationship of the flow to nasal diseases.

Some earlier articles describe recording the velocity and volume of air inspired at the nostril.[7] A simple water manometer was attached to a tube at the nostril and pressure was obtained in this manner.[8] Some workers blocked one nostril and studied the other with external pressure measurement.[9,10] One device is a warm wire flow meter which is placed outside the nostril. This method was perfected by an oral surgeon to study postoperative cleft palate patients. The air flow over the wire changed the temperature which was transferred to recorders. Velocity and volume of flow were calculated.[11]

These methods using only external measurement to determine nasal pressure were inaccurate because pressure changes in the nasopharynx were not measured and therefore no transnasal pressure measurement was possible. The importance of accurate transnasal pressure is obvious when it is observed that nasal flow must overcome nasal resistance, and a falsely elevated nasal pressure would be reflected in a falsely elevated flow rate. The formula for calculating resistance is

$$R = \frac{P \text{ cm}/H_2O}{V \text{ liters/sec}}$$

It should be remembered that R is the flow rate in liters per second per centimeter H_2O.

As early as 1940, Uddstromer divided a face mask into oral and nasal compartments which were in turn connected to gas meters.[12]

In 1964 Speiger introduced a technique for measuring air flow resistances simultaneously in the nasal and pulmonary passages. Esophageal and pharyngeal balloons were used. This method has the advantage of being physiologically sound; however, it is difficult and has been limited to trained subjects who can tolerate the balloon placement.[13,14]

In 1965 two separate groups, one at the University of Rochester[6] and the other at the University of Michigan,[13] devised an accurate method of reliably recording meaningful transnasal pressures in essentially untrained subjects. A large Collins face mask was devised which allowed measurement of the pressure at the nares and in the nasopharynx. The latter was accomplished by means of placing a small tube on the posterior tongue and closing the mouth, thus sealing the tube in place (Fig. 1). The difference in external and nasopharyngeal pressure is the transnasal pressure. The two pressures are carried to a transducer through uniform rubber tubing. The volume

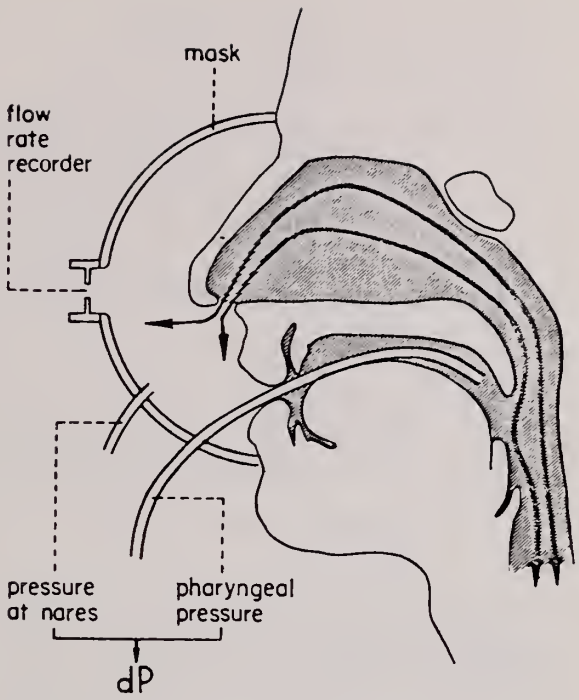


Fig. 1.—Use of a mask and pharyngeal tube to obtain the transnasal pressure drop (dP). The arrows denote approximate paths taken by respired air. Large dynamic pressure effects may be expected at points of flow convergence. From J. Dent. Res. 42:1520-1527, 1963.

of air is measured by a wire mesh screen pneumatachograph over a nonresistant air intake in the mask. The transnasal pressure and volume of inspired and expired air are simultaneously plotted against each other on an x-y axis oscilloscope as demonstrated by the graph in Figure 2. Each breath can be either traced or photographed from the oscilloscope for future records.[13,6]

The true nature of nasal physiology is demonstrated by the constant and vibrant interplay of the volume of air in relation to the exact transnasal pressure at any one point in the respiratory cycle.

Normal subjects create a nasal air flow of about .5 liter/second with a transnasal pressure of only 1.2 cm. water.

Previous methods had described normal nasal pressure many times this great because they were using only the external nose pressure and assuming the nasopharyngeal pressure to be near zero. We now know that nasal resistance represents 40% of the total airway resistance.[13,15] This method is being used to evaluate a variety of nasal diseases affecting nasal air flow.[3,15]

In the Division of Otolaryngology at the University of Florida College of Medicine an interest in rhinometric studies developed when high con-

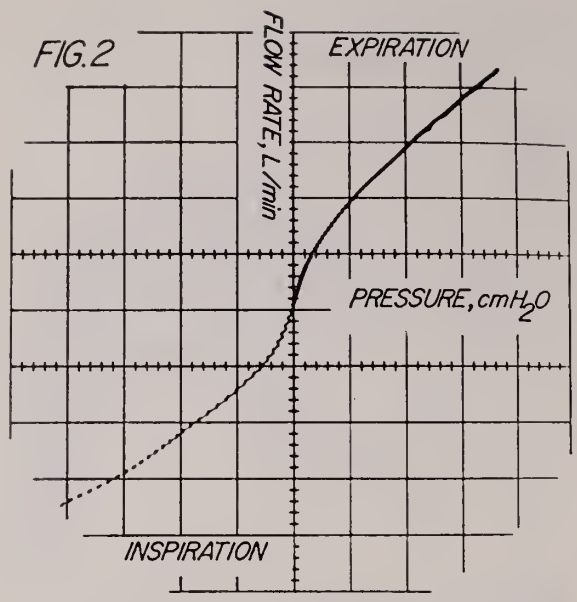


Fig. 2.—Direct print of a negative from the oscilloscope camera showing pressure-flow relationships in the nasal passages in one subject. From Laryngoscope 68:2001-2014, 1958.

centrations of synephrine were found in citrus juices. We were requested to determine whether systemic synephrine was of value as a decongestant. The previously described method of recording transnasal pressure was used to study volunteers who had intermittent subjective nasal obstruction. Pressure and volume curves were plotted and traced before, and for three hours after, ingestion of up to 300 mg. of synephrine extracted from tangerine leaves supplied by the Florida Citrus Experiment Station. There was no demonstrable change in these parameters of nasal function following synephrine. However, we found dramatic changes when ephedrine was administered systemically and neosynephrine was applied topically.[16]

Summary

An outline of normal nasal physiology is discussed with emphasis on the airway. A survey of previous methods for studying nasal air flow is mentioned. A recent method of accurately determining nasal flow is discussed involving transnasal pressure and oscilloscopic recording device. Using this method, it was found that the nasal flow rate was unaffected by systemic synephrine extracted from citrus.

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▶ Dr. Holloway, 97 West Columbia Street, Orlando 32806.

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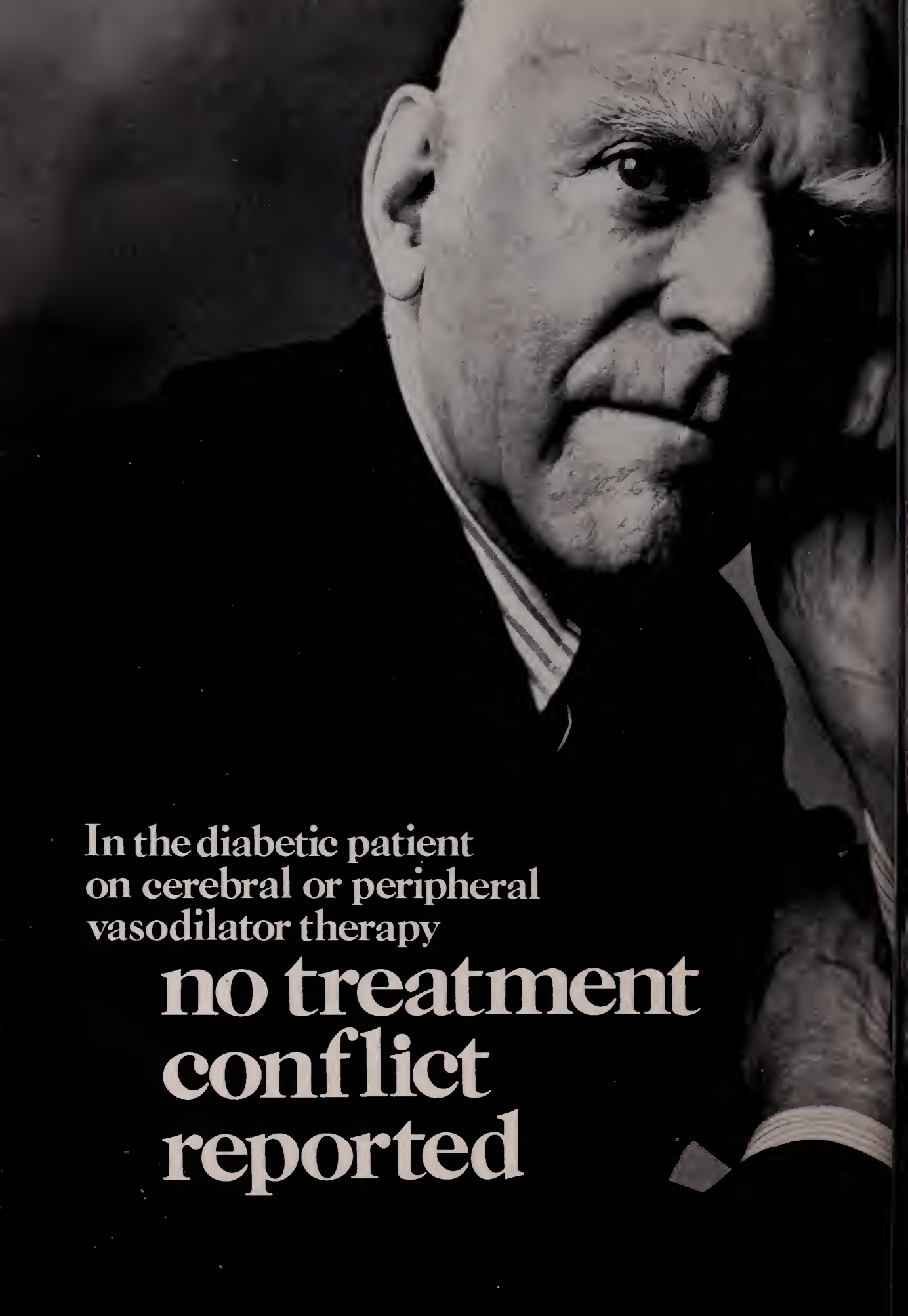
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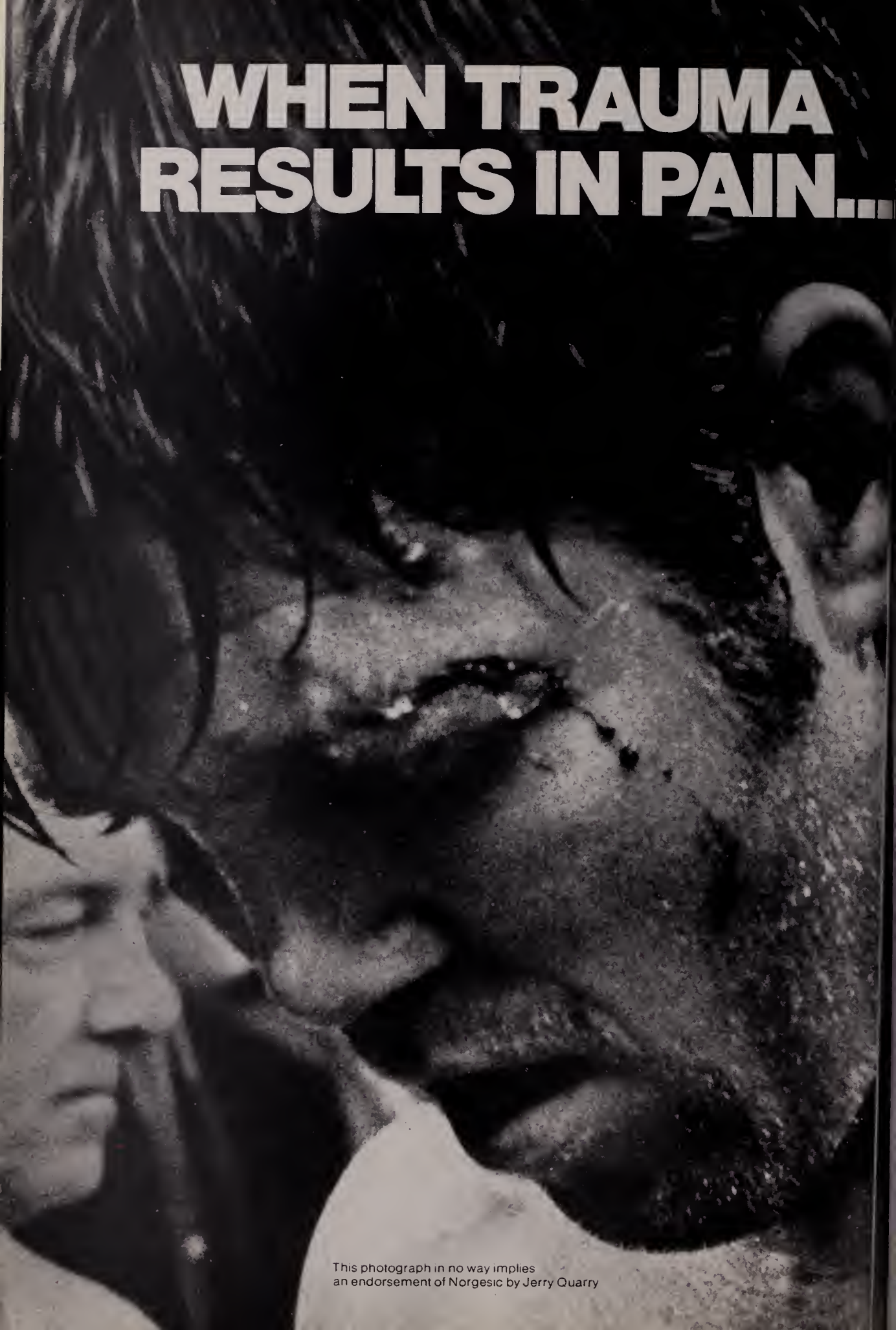
Indications: Cerebrovascular insufficiency, arteriosclerosis obliterans, diabetic vascular diseases, thromboangiitis obliterans (Buerger's disease), Raynaud's disease, postphlebitic conditions, acroparesthesia, frostbite syndrome and ulcers of the extremities (arteriosclerotic, diabetic, thrombotic). Composition: VASODILAN tablets, isoxsuprine HCl 10 mg and 20 mg. Dosage: Oral—10 to 20 mg. t.i.d. or q.i.d. Contraindications and Cautions: There are no known contraindications to recommended oral dosage. Do not give immediately postpartum or in the presence of arterial bleeding. Side Effects: Occasional palpitation and dizziness can usually be controlled by dosage reduction. Complete detail available in product brochure from Mead Johnson Laboratories.

References: (1) Samuels, S. S., and Shaftel, H. E.: J. Indiana Med. Ass. *54*:1021-1023 (July) 1962. (2) Clarkson, I. S., and LePere, D. M.: Angiology *11*:190-192 (June) 1960. (3) Horton, G. E., and Johnson, P. C., Jr.: Angiology *15*:70-74 (Feb.) 1964. (4) Dhrymiotis, A. D., and Whittier, J. R.: Curr. Ther. Res. *4*:124-128 (April) 1962. (5) Whittier, J. R.: Angiology *15*:82-87 (Feb.) 1964.

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USE IN CHILDREN The safe and effective use of this drug in children has not been established; therefore, the physician must weigh the benefits against the potential hazards.

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It would be proper for the doctor leaving the association to photocopy, at his expense, all the patient records belonging to the corporation if he is presumably a fifty per cent owner of the corporation; however, the records of patients which were clearly those of other doctors prior to the association and those who have continued to consult these doctors should not be copied.

The usual type of announcement in opening a new office is indicated for the physician leaving the association. It does not seem necessary to advise the public of his disassociation from the corporation unless it is mutually desired by the partners. It is proper for the corporation to send a letter to current patients. Similarly, it is proper for the physician leaving the group to send a letter of explanation to his patients, implementing the patient's request for his records to be transferred.

In the final analysis, the choice of physician remains with the patient. It is common professional courtesy to freely transmit, with the patient's consent, patient records or an abstract thereof, to another physician to facilitate treatment of the patient.

Editor's Note: The above was written by Ernest R. Boukard, M.D., Chairman, Board of Censors, Hillsborough County Medical Association. A request that this be published in the Journal as guidelines for future inquiries was made by our Judicial Council.

FMA Meetings in March

March 7	Council on Medical Economics Hawaiian Village, Tampa, 10:00 a.m.
March 7	Judicial Council FMA Headquarters, Jacksonville, 10:00 a.m.
March 10	Ad Hoc Committee on Drug Abuse, (place to be announced) Tampa, 10:00 a.m.
March 27	Executive Committee FMA Headquarters, Jacksonville
March 28	Board of Governors FMA Headquarters, Jacksonville

The Many Myths of Medicare

Robert E. Zellner, M.D.

The Medicare Program has been so badly oversold, not only to the public but to the medical profession, that there is general dissatisfaction among all concerned. Government blaming doctors, doctors blaming Blue Shield, patients blaming everybody. The program is not quite 5 years old and yet it has become so enshrouded with myths and misunderstanding that anyone who has any dealings with Medicare in any capacity is apt to come away feeling that he has been mistreated. Wider understanding of what Medicare is and what it is not, especially among doctors, can only result in its being appraised more realistically. It is in an effort to dispel some of the Medicare myths that this is written.

Myth No. 1.—Medicare is a "full service" medical-hospital care contract.

It is not. A "full service contract" is one that completely pays all doctor and hospital bills. Even at its inception, Medicare excluded the first $50.00 of medical charges and then paid 80% of the remainder of the charges provided they fell within the limits set by the Social Security Administration as reasonable. Hospital coverage is also subject to deductibles. In order to reduce costs, SSA has reduced benefits and on two occasions constricted its definition on what constituted "reasonable" fees. Further, Medicare is not a contract. It is a Government program providing benefits which are changeable subject to the whims of Congress and the Social Security Administration.

Myth No. 2.—Medicare sets doctors' fees

This is not necessarily so. There are two ways a doctor may bill SSA for payment for services rendered under Medicare: He may take an assignment, in which case benefits are paid directly to the doctor; or he may not take an assignment, then benefits are payable direct to the patient. There are advantages and disadvantages in electing either alternative. Where a doctor does take an assignment of benefits, he is assured that he will be paid directly, but he also agrees that he will accept as payment in full for his services whatever SSA determines his fee ought to be. If he does not accept assignment, the doctor has no assurance that the patient, when he collects his money, will pay his bill, but he is free to charge his patient any fee that is mutually agreeable. The patient will still be reimbursed only on the basis of what the SSA calls "Allowable Charges," which oftentimes are lower than the doctors usual fee. This is a thinly disguised attempt to put pressure on the doctor to reduce his fee to Medicare levels by suggesting that he is overcharging; but nevertheless the doctor can still determine his own fee. Blue Shield and the American Medical Association have vigorously and repeatedly protested the words "more than allowable charges" on the Medicare form, but to the present time to no avail.

Myth No. 3.—Medicare pays doctors' Usual and Customary fees.

Sometimes, yes, and sometimes, no. When Medicare first began, doctors fees that fell within the 90th percentile were paid in their entirety. *Not* 90% of the doctors fees. For example, if 100 charges were made for a procedure, the 90th percentile is that fee which would pay in full the lowest 90. Subsequently, SSA reduced the allowable maximum to the 83rd percentile of the fees doctors charged in the year 1968. Profiles of charges were kept on each doctor and on each procedure. A doctor whose fee fell at or below the 83rd percentile was paid his full fee and those above were paid the maximum amount, the 83rd percentile. However, by regulation, it was made almost impossible for the doctor charging *below* the 83rd percentile to raise his fee *even if his increased fee was below the maximal allowance.* As of January 1, 1971 SSA has again changed its formula for determining its maximum allowance (under these circumstances it is sheer mockery any longer to refer to this being a determination of usual, customary, or reasonable fees). Now the maximum is the 75th percentile of the customary fee for the procedure and the 50th percentile of the doctor's usual 1969 fee. If a doctor charges all his patients the same fee for the same procedure, the 50th percentile figure will be no problem, because his 20th, 30th, 50th and 100th percentiles are all one and the same figure. If his fees have been at or below the 75th percentile he will con-

tinue to be paid his full charges. If his fees have been at the 80th percentile (i.e. below the 83rd percentile but above the 75th) he may find that he will be paid less and his patients will receive more of those "more than allowable charges" notices.

MYTH No. 4.—The Social Security Administration is "out to get the doctors"

This has not been the experience of Blue Shield in Florida. SSA is made up of thousands of civil service employees charged with administering an almost impossible program. They represent a cross section of American society with some anti-doctor, some pro-doctor, and the vast majority, neither. Mr. Robert Meyers, until recently the chief actuary of the Social Security Administration, has literally taken the stump in opposition to what he considers the arbitrary and unfair manner in which the medical profession has been treated by Medicare. No doubt there are many others like him. The experience of Blue Shield of Florida with Southeastern District Office in Atlanta has been that it has been fair and understanding but firm in the administration of the regulations and the law to the letter. SSA Commissioner Robert Ball, it will be remembered, resisted the disclosure of the names of the doctors who received $25,000 or more as demanded by the Senate Finance Committee to the point where he had the choice of complying or being fired.

MYTH No. 5.—SSA fully controls the activities of Medicare

As indicated above, SSA is subject to powerful pressures by the Senate Finance Committee, by individual politicians, by HEW, by the AFL-CIO, by the AMA and by various other interested parties. Obviously, political pressures exert the most leverage. As a prime example of reaction to pressure, the SSA on its own initiative and because in its judgement it is *likely* that Congress will order a reduction in the maximum allowance in the doctors fees from the 83rd to 75th percentile, ordered such a reduction effective January 1, 1971. It is fair to say that SSA administers the Medicare Program in accordance with its interpretation of the law and the intent of Congress and in keeping with its own regulations.

MYTH No. 6.—Peer Review is an attempt to cut Medicare costs and reduce doctors' fees.

This is the ultimate canard. Provision for peer review was included in Title XVIII at the insistence of the AMA, so that whenever there was a review of a doctors activities it would be by his peers rather than by Government beaurocrats or by hired laymen. In Florida, we have been informed that we have a unique situation in that we are the only state where peer review is conducted under the auspices of the state and county medical societies. In one nearby state, peer review consists of one anesthesiologist, whose decisions are subject to review only by SSA. Organized medicine, from the beginning, has stated that it can and will police its own ranks. Peer review is often a doctor's best friend. I believe that most of us are convinced that most of us practice good medicine and are willing for our practice to be surveyed by respected colleagues. If I am doing something wrong, I want to know about it. If I am doing a good job, I want everybody else to know about it. Peer review sustains the good doctor, helps return the errant doctor to the straight and narrow path, and exposes the crook. What more could one ask?

MYTH No. 7.—The Blue Shield Board is the unwitting tool of the Social Security Administration.

Henry J. Babers Jr., M.D.
William J. Dean, M.D.
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Robert E. Zellner, M.D.

The above named people are currently members of the Blue Shield Board. Does anyone who knows these people honestly think that any one or all of them *could be brainwashed?* If so, by whom? and for what purpose?

If this is possible, then there is really no hope for representative government in medical organizations. I can't believe that anyone, however much he may disagree with Board decisions can

seriously entertain such an idea. Sometimes the Blue Shield Board is directed by the House of Delegates to take action which it cannot do. For example, Blue Shield was once ordered by the House of Delegates to stop selling "J" contracts. This was impossible without the permission of the Insurance Commissioner of Florida and without offering all "J" contract policy holders comparable new contracts. This was done, but it took two years to accomplish.

Blue Shield is often blamed for the arbitrary decisions of Medicare. *All* policy decisions in the administration of Medicare are made by SSA, *not* by Blue Shield. Blue Shield is the fiscal intermediary for Medicare which means it simply manages the Medicare program in accordance with the directives of the Social Security Administration, with very little latitude in so doing. Repeatedly, the Board and Blue Shield administration have protested to SSA concerning directives which we felt were not in the interest of the beneficiary or the doctor. When we were successful, nothing was ever heard about it, when we were unsuccessful, we were—brainwashed?

Myth No. 8.—Any Doctor who billed Medicare for $25,000 or more is automatically suspected of being dishonest.

Not so! There have been instances where Medicare was charged and has paid charges in excess of its allowances. There have also been a few instances of fraud. Just as the IRS only investigates the larger taxpayer, the honest as well as the dishonest, Medicare investigates the larger "billers" because it is in that category that the most money for overpayment can be reclaimed. Until 1971, where there was proof of overcharging, overutilization, billing for services that were not payable or just plain cheating, SSA went directly to the doctor and asked for a return of the overpayment. This method of collection was notably unsuccessful. To collect funds through the courts would be costly and time consuming. Accordingly, as of January 1, 1971, SSA issued a ruling that all payments to doctors who were referred for peer review would be suspended until cleared by peer review. In 1969 there were over 8,000 physicians who billed Medicare for $25,000 or more. Of these ¾ were eliminated by SSA for further investigation because there appeared to be nothing unusual about their charges or billing practice. The remaining two thousand were referred for peer review and, of these, 395 were Florida physicians. Both Blue Shield and the AMA have protested to SSA that this heavy handed attempt to get at the few worked a great hardship on the many. There may be some refinement in the criteria used in the selection of those whose Medicare payments will be suspended, but it does not appear likely that the order will be completely rescinded.

Myth No. 9.—Blue Shield would go broke if it lost the Medicare business.

No so! From the very beginning the possibility of the Government's cancellation of the contract or of the necessity of Blue Shield's withdrawing as fiscal administrator has been anticipated. Operating costs of Blue Shield's own business have also been segregated and Blue Shield today is still the successful business operation it was five years ago before there was any Medicare. Government accounting has made sure that there was no "profit" made in Medicare.

Myth No. 10.—It doesn't make any difference who administers the Medicare program in Florida.

With the inception of the Medicare program, I can recall having two diametrically opposed feelings: As a physician, I wanted to have Blue Shield stand as a buffer between me and the Government. As a member of the Blue Shield Board of Directors, I felt that nothing was worse for Blue Shield than to become involved in the bureaucracy of the Medicare program. Four years later, I have not changed my opinion. Ninety percent of the complaints that Blue Shield gets are related to Medicare and the vast majority of these are about things over which Blue Shield has no control. The one reason, insofar as I am concerned, for asking Blue Shield to assume this obligation, is for the service it can be, and has been, to the doctors of Florida. As has already been mentioned, Florida's peer review system, thanks to Blue Shield and to the wholehearted support of the FMA Board of Governors, is unique and is the best system yet devised to protect the doctor against arbitrary treatment and peremptory decisions by Government bureaucracy. A more recent example of Blue Shield's influence: The Medicare law from the beginning has required that, where feasible, specialists fees be taken into consideration separately in establishing profiles for establishing Medicare allowances. Recently, Blue Shield was directed to implement this requirement. The FMA, Blue Shield and numerous other medical organizations have rejected the idea of dual fee schedules for many reasons, among which is the

near impossibility of defining a specialist. After much correspondence and after a meeting between Regional Representative of Social Security and Blue Shield Board members, it was decided that the implementation of a dual fee schedule in Florida was not presently feasible. You may be assured that had a commercial insurance company been the fiscal administrator in Florida, the doctors point of view would not have been consulted.

Medicare is with us to stay in one form or another. Nobody understands the problems peculiar to the practice of medicine quite as well as those who practice it. It does make a difference who looks out for your interest. As long as you can persuade some long suffering doctor to act as your representative on the Blue Shield Board of Directors in the administration of Medicare, in my opinion you had better do it.

Finally, there are certain facts of life that all doctors should recognize:

(1) Medicare is a Government program largely supported by tax funds. The Government has the right and the obligation to attempt to control costs, to determine that the funds that it appropriates are properly spent, and to determine the maximal amount of its liability for any particular service. This commercial insurance companies do.

(2) The Federal Government has promised more medical and hospital care than it can afford or deliver. In an effort to reduce costs, it is likely that there will continue to be a reduction in covered services (as evidenced by the restrictions placed on nursing home charges) and in benefits (witness recent reduction in percentile for fee allowances). It is also likely that the medical profession, the most vulnerable and the most accessible target, will continue to be blamed for the failure of the Medicare program to live up to advanced expectations.

(3) The Federal Government has no right presently to offer, to commit, or to compel, your services (except for military service) or to set your fees. The acceptance of assignment of Medicare benefits is *not* required. This is a voluntary act by the doctor in which he accepts government determination of his fee for which all he gets in return is guaranteed payment of his "allowed" fee.

(4) As long as you deal with your Medicare patients directly, without acceptance of assignments, fairly and equitably and in the same manner as all other patients are treated, the Government is likely to stay off your back.

▶ Dr. Zellner, 515 South Orange Avenue, Orlando 32801.

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Editorial

Fifteenth Annual Conference of County Medical Presidents and Secretaries

The Fifteenth Annual Conference of County Medical Society Presidents and Secretaries held in January at Orlando was a far cry from previous ones and had something of importance and interest for every Florida practitioner no matter what his specialty or locality. Remarks heard at the coffee break included "an entire day like this should be reserved at the annual meeting of the FMA," and "Similar speakers and subjects should be utilized by the specialty groups at their scientific sessions," and, "why not a special issue of the Journal to include all of these speakers." While the intent of this meeting was that the information filter down through the presidents and secretaries of the various county societies, and, in turn, reach the ears of the rank and file member, it was thought that additional publicity would aid in this purpose.

The program was opened by Bob Zellner, Chairman of the Ad Hoc Committee to Study the Structure of the FMA. Dr. Zellner said that three sets of questionnaires were sent to component county societies asking for criticisms and suggestions in revamping the By-Laws of the FMA and less than ten replies were returned. Of these, three said, "you are doing a great job, keep up the good work." The committee thought that we should know where we are going, but to do so, should first see where we have been and there followed the history of the founding of the Florida Medical Association in 1874 at Jacksonville by a group of practicing doctors. At each annual meeting any member could attend and had the privilege of the floor. After World War II the House of Delegates was organized and twice since then the By-Laws and the Constitution have been studied and new By-Laws adopted. Dr. Zellner's committee has reviewed the Constitution and By-Laws line by line and have written recommendations which will be reported to the Board of Governors prior to presenting to the House of Delegates at the next annual meeting.

Dr. Kenneth Penrod, Vice Chancellor of the Board of Regents, gave a very sensible and exciting proposal in which he interpreted and explained his article in the January Journal. The increased maturity and intelligence of our youth is such that highschool students are far advanced beyond the highschool students of 20 and 30 years ago. Much thought has been given to the many subjects needed to develop a well-educated, well-rounded M.D. Taking into account the untapped educational resources of the private practitioner, the needs of the ghettos and the speed at which various students learn, yet realizing that it is impossible to know what is needed to produce an M.D. in 1980, Dr. Penrod said the objective is to develop an individual with continuous curiosity to keep learning. He described the plans of combining undergraduate and preclinical subjects such as biochemistry, biology, microbiology, physiology but not pathology or anatomy, so that two years after an individual attains his college degree it would be possible for him to receive an M.D. degree. Then, depending upon his maturity, his interest and the facilities available, he could begin the practice of medicine, under supervision, until he became board certified.

Dr. John Cheleden, Chairman of the Judicial Council, discussed the problems of hospital-based physicians, saying that because of the apathy of the attending staff, hospital administrators have been forced to employ directors of medical education, chiefs of staff, heads of departments and emergency room physicians. The incentives to becoming a full-time, hospital-based practitioner are many but the danger is that as the government becomes more involved in medical practice, it will constantly look for ways to cut costs and as a result will pay the salaried emergency physician on the same basis as any other hospital employee and not on a fee-for-service basis.

In discussing osteopathy in the United States, there are 13,000 D.O.'s, 605 of whom are G.P.'s.

One of every 20 practicing physician is a D.O. There are 688 D.O.'s in Florida, 10% of the practicing physicians.

While there are almost 50,000 graduates of foreign medical schools in the United States, half of them are practicing and 40% of them are on house staffs. Each year 1,000 come from the medical schools of Mexico and the Philippines into the United States as ECFMG licensed. Fifty per cent of the recent applicants for Florida licenses were graduates of foreign medical schools.

The urgent need for medical peer review was presented by Dr. James Byrne, Chairman of the Peer Medical Utilization Review Committee, who said that $117,000,000 was paid to Florida physicians for Medicare patients last year. This is our tax money coming back and we should certainly be critically aware of how it is properly used or falsely accepted.

Dr. Irving Hall, President of the Florida Health and Manpower Council, presented an illustrated discussion of the physician's assistant and a personable, articulate assistant who has been working in his office for the past year and a half.

The most attractive part of the program was Mrs. Arnold Spanjers, President of the Woman's Auxiliary, who gave a heart-warming discussion of the activities of our wives.

The most effective speech was by Dr. Joseph VonThron, Chairman of the Council on Legislation and Public Agencies, on our national and state legislative program.

The activities of the Committee on Child Health was presented by the Chairman, Dr. Wesley Nock, and Dr. Thad Moseley, Chairman, Florida Medical Foundation Committee, described the foundations for medical care as a method of developing community group practice to provide prepaid comprehensive health care.

To find out what Dr. Ernest Howard, Senator de la Parte, Senator Myers and Representative Earle said, contact your local medical society president or secretary and next year you will want to be there yourself!

C.M.C.

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Who, Me?

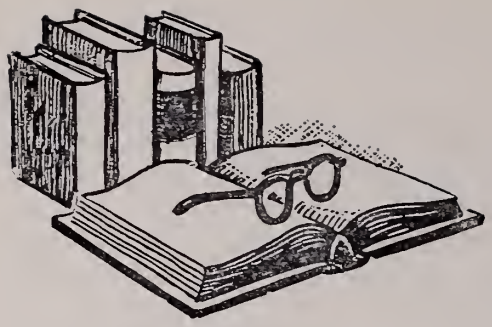
Surveying a rough draft of the composite returns from the 1970 questionnaire mailed last year to random members by the FMA Committee on Relative Value Studies, one sees, in line with a service, three different fees, typed in columns, between the 1968 FMA Relative Value figure and the 1969 California Relative Value figure. One promptly wonders why the cost of medical care in California is considered to be so much higher than elsewhere, and one wonders how the committee members discussed objectively the revisions and why they approved the higher, lower or median figure. But how does one equate the responsibility assumed and the service rendered by a physician treating a patient with a myocardial infarction as opposed to resecting an aortic aneurysm, delivering a baby or treating an acute asthmatic patient with the variables of time and the severity of the condition? Either the patient or the physician may be unfairly rewarded or penalized.

In order to pay his overhead, his personal and family living expenses and put aside something for retirement, the physician must make a reasonable profit. While most are humanitarians, deeply concerned for the welfare of their patients, and so will not knowingly charge too much, yet, setting a fee without considerate regard for the patient's ability to pay, can turn a justifiable profit into fee gouging or charging all the traffic will bear. Originally, fees were established on a flexible, so-called Robin Hood basis, in which the well-off and those who paid their bills were charged something in excess to offset losses created by the poor who could not pay. Yet, where deficient collections produce a sagging profit margin, and this then is bolstered by fee increases, paying patients are charged more to offset the losses from those who can't or won't pay. Faulty business practices, encouraging slow payment through inaccurate records, poorly-timed billing dates and inconsistencies in billing procedures all have the same effect. A credit policy, flexible and sufficiently keyed to the buying ability and needs of each patient and his family, can affect the availability of medical care to a patient if not manuevered out of his reach. Rigid, tight credit practices, the custom in some medical offices, without provisions for a mature, qualified member of the physician's staff determining the paying ability of any patient or reasons for nonpayment, can adversely affect the availability of these services. Ever increasing collection rates from agencies and payments from third parties no longer justifies the modern physician's saying that he must charge an excessive fee to offset his credit losses.

The AMA Judicial Council has reaffirmed that as the laborer is worthy of his hire so is the physician entitled to reasonable compensation for the services he performs. At the same time, it is pointed out that the prime objective of the medical profession is to serve humanity, while financial gain is a subordinate consideration. Suing patients in small claims courts, charging interest on past due accounts, requiring patients to obtain bank loans to pay full amounts prior to services rendered, do much to take from the practice of medicine, a physician's personal involvement with his patients, making his care unavailable to those who cannot meet his terms. Such a system of rigid credit and cash in advance for services to be rendered is much akin to trade union policies not dissimilar from strikes, work slow-downs and job stoppages by high-priced journeymen.

The political writer who coined the phrase that every American deserves the right to medical care undoubtedly took this from the time-honored philosophy of the healing arts that medical service should be provided to all, whether they are able to pay or not. Such being part of the professional traditions and ideals should also be a part of the creed of every physician. It is clear, however, that some MD's are overly concerned with the monetary rewards of healing the sick with the dictum of available medical service only to those who can pay, casting aside the ideals and traditions of the profession by adopting the practices of businesses and trades in dealing with patients. Too, new comers and certain specialties, without a precedent to guide them, set excessive and seemingly unjustifiable rates on their services. Those physicians, demonstrating that financial compensation is their main consideration and regard, are making a trade out of the practice of medicine and are responsible for a lot of the ill feeling that the public has developed toward us. In the eyes of the American public the tarnished image of the physician, in contrast to that of a few decades ago, will not be enhanced by such actions.

C.M.C.



BOOKS

Otolaryngology edited by William F. Robbett, M.D. Vol. 2. Pp. 342. 453 illustrations. Price $27.50. St. Louis, The C. V. Mosby Company, 1969.

This hardbook records papers presented at the 100-year anniversary gathering at the Manhattan Eye, Ear and Throat Hospital in 1968.

The book deals primarily with newer surgical procedures relating to the ENT area. Most of the procedures are well illustrated for diagnosis and therapy. Other chapters deal with newer diagnostic ENT procedures. Certain chapters are in symposium form with different participants discussing a subject.

It is my feeling that this book is intended for the otolaryngologist only, and would probably be of great use to him. It is too detailed for the man out of the ENT field to put to practical use.

CHARLES A. DUNN, M.D.
MIAMI

Practical Automation for the Clinical Laboratory by Wilma L. White, B.A., Marilyn M. Erickson, B.S. and Sue C. Stevens, B.A., Ph.D. Pp. 401. 242 illustrations. Price $14.50. St. Louis, The C. V. Mosby Company, 1968.

"Practical Automation for the Clinical Laboratory" states in the preface that "the purpose of this book is to present a basic mechanical and practical approach to utilizing automatic equipment in the laboratory." It is regrettable that this effort is not successful.

The book is out of date and most elements of this book are included in the applicable manufacturer's instruction booklets.

Fortunately, portions of the text are humorous.

EDWARD N. WILLEY, M.D.
ST. PETERSBURG

Receipt of the following books is acknowledged. While time and space will not permit review of all books received, medical readers interested in reviewing particular books are invited to address requests to the Editor. Following acceptance of a written review for publication, a reviewer may then retain the book reviewed for his personal or favorite library.—Ed.

The Adolescent Patient by William A. Daniel Jr., M.D. Pp. 444. 76 illustrations. Price $20.50. St. Louis, The C. V. Mosby Company, 1970.

Spectroscopic Approaches to Biomolecular Conformation edited by D. W. Urry. Pp. 314. Illustrated. Price $15.00. Chicago, American Medical Association, 1970.

Vital Statistics of the United States 1967, Volume III—Marriage and Divorce by U.S. Department of Health, Education, and Welfare. Pp. 53. Price $1.25. Washington, D. C., U. S. Government Printing Office, 1970.

Urological Surgery. 4th Ed. by Austin Ingram Dodson Jr., M.D. Pp. 617. Price $32.50. 694 illustrations. St. Louis, The C. V. Mosby Company, 1970.

The Early Orthopaedic Surgeons of America by Alfred Rives Shands Jr., M.D. Pp. 190. Illustrated. Price $15. St. Louis, The C. V. Mosby Company, 1970.

Infection Control in the Hospital by the American Hospital Association. Pp. 154. Price $4. Chicago, Illinois 1970.

Macular Diseases by J. Donald M. Gass, M.D. Pp. 232. Illustrated. Price $48.50. St. Louis, The C. V. Mosby Company, 1970.

Selective Bibliography of Orthopaedic Surgery. 2nd Ed. By the American Academy of Orthopaedic Surgery. Price $7.25. St. Louis, The C. V. Mosby Company, 1970.

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Precautions: As with other thyroid preparations, an overdosage may cause diarrhea or cramps, nervousness, tremors, tachycardia, vomiting and continued weight loss. These effects may begin after four or five days or may not become apparent for one to three weeks. Patients receiving the drug should be observed closely for signs of thyrotoxicosis. If indications of overdosage appear, discontinue medication for 2-6 days, then resume at a lower dosage level. In patients with diabetes mellitus, careful observations should be made for changes in insulin or other antidiabetic drug dosage requirements. If hypothyroidism is accompanied by adrenal insufficiency, as Addison's Disease (chronic subcortical insufficiency), Simmond's Disease (panhypopituitarism) or Cushing's syndrome (hyperadrenalism), these dysfunctions must be corrected prior to and during SYNTHROID (sodium levothyroxine) administration. The drug should be administered with caution to patients with cardiovascular disease; development of chest pains or other aggravations of cardiovascular disease requires a reduction in dosage.
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Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored and color-coded, in bottles of 100 and 500. Injection: 500 mcg. lyophilized active ingredient and 10 mg. of Mannitol, N.F., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Injection, U.S.P., as a diluent. SYNTHROID (sodium levothyroxine) INJECTION may be administered intravenously utilizing 200-400 mcg. of a solution containing 100 mcg. per ml. If significant improvement is not shown the following day, a repeat injection of 100-200 mcg. may be given.

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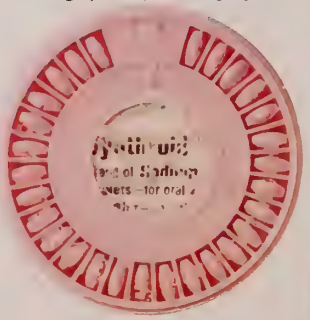


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MEETINGS

Approved by FMA
Committee on Postgraduate Education

MARCH

6 Early Diagnosis and Management of the Stroke Syndrome, Ponte Vedra Inn, Ponte Vedra. For information: Jacob Green, M.D., 2105 Park St., Jacksonville 32204.

6 Fifteenth Watson Clinic Annual Seminar, Watson Clinic, Lakeland. For information: Brunildo A. Herrero, M.D., Watson Clinic, Lakeland 33802.

6- 7 1971—Physician's Seminar on Respiratory Diseases, Ramada Inn, Tampa. For information: M. A. Barton, M.D., 701-6th St., S., Mound Park Hospital Foundation, Inc., St. Petersburg 33701.

9-13 "Selected Topics in Roentgendiagnosis; Radiologic-Pathologic Correlations," Fontainebleau Hotel, Miami Beach. For information: Manuel Viamonte Jr., M.D., University of Miami School of Medicine, Box 875, Biscayne Annex, Miami 33152.

14-17 Special Procedures in Diagnostic Radiology, Eden Roc Hotel, Miami Beach. For information: Mrs. Gwen Hendel, Mt. Sinai Hospital, Miami Beach 33140.

17-20 Third Teaching Conference in Clinical Cardiology, Sheraton Four Ambassadors, Maimi. For information: Michael S. Gordon, M.D., University of Miami School of Medicine, Box 875, Biscayne Annex, Miami 33152.

22-27 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

26-27 Eighth Annual Postgraduate Surgical Seminar, Cedars of Lebanon Hospital, Miami. For information: Mary E. Cunningham, R.N., Dir. of Education, Cedars of Lebanon Hospital, 1321 14th St., Miami 33125.

APRIL

17 Fifth Annual Seminar for Physicians, Port-O-Call, Tierra Verde, St. Petersburg. For information: Florida Division, American Cancer Society, 2909 Bay-to-Bay Blvd., Tampa 33609.

19-24 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

23-24 Seminar on Arthritis and Related Diseases, Sheraton Hotel, Jacksonville. For information: William B. Thirlwell, 2522 Oak St., Jacksonville 32204.

MAY

3- 8 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

24-29 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

General News

Dr. Glassman Guest Speaker

Jacob A. Glassman, M.D., F.A.C.S., will deliver a lecture at the Sixty-Third Annual Meeting of the Phi Lambda Kappa Medical Society on March 18-28, 1971. The meeting will be held at the Eden Roc Hotel, Miami Beach, Florida. Dr. Glassman's subject will be "Cholecystostomy and the Geriatric Patient."

Founders of Medicine

The Lakeland Graduate Medical Assembly's 1971 Founders of Medicine meeting will be held vember 17-19 in Winter Haven.

Names of speakers and registration information will be announced later, according to Charles W. Inman, M.D., chairman of the program.

The Assembly is an organization of independent practitioners dedicated to improving the quality of medical care and furthering medical education. Its mailing address is Box 2335, Lakeland, Florida 33803.

Socioeconomics of Health Care

"Current Issues in Medical Care Delivery" will be the theme for the 5th National Congress on the Socioeconomics of Health Care, to be held in Las Vegas, Nevada, April 2-3.

The meeting is sponsored by the Council on Medical Service and the Division of Medical Practice of the American Medical Association.

The two-day conference will be held at Caesars Palace in Las Vegas. Additional information may be obtained by contacting: Secretary, Council on Medical Service, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.

Calder Memorial Library

Ground was broken on January 6 for the new Calder Memorial Library at the University of Miami School of Medicine.

Participating in the ceremony were Dr. Henry K. Stanford, President of the University and Dr. Emanuel M. Papper, Dean of the Medical School.

The three-story structure is scheduled for completion in January of next year. The Division of Health, Education and Welfare is providing $1,084,245 for the construction and equipment.. The Calder Foundation of New York City is providing a similar amount.

Decision on Abortion

Florida physicians may legally refer patients for abortions to other states or countries where such operations are legal, according to the state Attorney General.

But if a Florida doctor advises and arranges for an abortion performed within the Florida boundaries, he would be subject to prosecution under the laws of the state along with the physician who actually performs the operation.

The opinion was among the last to be written by Earl Faircloth as Florida's Attorney General. It was in response to a question raised by George S. Palmer, M.D., Executive Director of the Florida State Board of Medical Examiners.

Dr. Palmer had asked whether any Florida criminal law would be violated if a state physician advises and makes arrangements for an abortion to be performed in a state or country where abortions are lawful, or aboard ship on the high seas when the operation is not necessary to perserve the life or health of the patient.

". . . Advising and arranging for an abortion to be performed . . . where abortions may legally be performed would not render the physician advising it and making arrangements for it subject to prosecution. . . ." Mr. Faircloth said ". . . the same would be true if the abortion were performed on the high seas outside of the territorial limits of this state."

New Officers of Greater Miami Radiological Society

On January 20, the following officers of the Greater Miami Radiological Society were elected for 1971: President, John H. Kathe, M.D., Miami; Secretary, George Meyer, M.D., Fort Lauderdale; Vice President, Stanley Worton, M.D., Miami, and Treasurer, Alfred Weinfeld, M.D., Miami.

Florida Medical Association Membership

Membership in the Florida Medical Association reached a record of 7,169 physicians on December 31, 1970, according to the FMA Membership Section.

This was a gain of 487 members over the 6,682 reported on the same date in 1969.

FMA earned a sixth seat in the American Medical Association's House of Delegates when the state's AMA membership exceeded 5,000. The new delegate and his alternate will be elected at the FMA Annual Meeting in May.

Active FMA membership amounted to 6,071 doctors as opposed to the 5,735 in that category a year earlier. There were 1,098 physicians holding other classes of membership at the end of last year and they fall in the following categories with the previous year's figures in parentheses: Associate membership, 720 (654); Retired or Disabled, 176 (158); and Interns or Residents, 202 (135).

All indications are that FMA membership will continue to grow during 1971.

Another Hike for Kaiser Subscribers

For the third time in less than two years, the Kaiser Foundation Health Plan in Northern California is raising its rates—this time by 9%. The big closed-panel plan, considered a model of cost effectiveness by government, increased rates 7.5% earlier this year and 18% in 1969. In the past, other Kaiser plans have followed a pattern of rate increases similar to Northern California's.

Dr. Norton Elected to Executive Committee of SMA

Edward Norton, M.D., of Miami has been elected to the Executive Committee of the Southern Medical Association's Section on Ophthalmology.

Dr. Norton, a member of the Dade County and Florida Medical Associations, was chosen during the SMA meeting in Dallas, Texas.

American College of Physicians

The 52nd Annual Session of the American College of Physicians will be held in Denver, Colorado, March 29-April 2.

A complete scientific program including lectures, exhibits, panel discussions and television, has been arranged.

There will be a convocation on Monday, March 29, at which time fellowship in the American College of Physicians will be bestowed on several hundred doctors.

Additional information about the meeting may be obtained by contacting the American College of Physicians, 4200 Pine Street, Philadelphia, Pennsylvania 19104.

AMA 24th National Conference on Rural Health

A Florida physician will be among the speakers at the AMA's 24th National Conference on Rural Health this month in Atlanta.

The meeting will be at the Atlanta Marriott Motor Hotel, March 25-26. Theme for the meeting will be "Community Health Programs for Tomorrow."

The final session on Friday afternoon, March 26, will feature, among other things, an address by Roy M. Baker, M.D., of Jacksonville, a member of the AMA Committee on Community Emergency Services.

The National Conference on Rural Health is sponsored each year by the AMA's Council on Rural Health.

Additional information may be obtained by writing to the Council on Rural Health—AMA, 535 North Dearborn Street, Chicago, Illinois 60610.

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THE PHARMACOLOGICAL BASIS OF THERAPEUTICS
3rd Edition, page 522



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MEETINGS

National and Regional Meetings Held in Florida

MARCH

1- 6 Society for Cryosurgery, Diplomat Hotel and Country Club, Hollywood. Sec.: Society for Cryosurgery, 30 N. Michigan Ave., Chicago 60602.

7-12 American College of Chest Physicians, "Problems and Approaches to Diagnosis and Management of Cardiopulmonary Failure," University of Miami School of Medicine, Miami Beach. For information: Charles F. Tate, M.D., 1000 N.W. 17th St., Miami 33136.

12-14 Association of University Anesthetists, Miami. Sec.: Robert M. Epstein, M.D., 622 W. 168th St., New York 10021.

14-18 International Anesthesia Research Society, Americana Hotel, Miami Beach. Ex. Sec.: B. B. Sankey, M.D. 3645 Warrensville Center Rd., Cleveland 44122.

24-26 American Surgical Association, Boca Raton Hotel and Club, Boca Raton. Sec.: G. Thomas Shires, 5323 Harry Hines Blvd., Dallas 75235.

28-April 1 American Society of Maxillofacial Surgeons, Eden Roc Hotel, Miami Beach. Sec.-Treas.: Dicran Goulian Jr., M.D., 116 E. 68th St., New York 10021.

APRIL

19-22 Southeastern Surgical Congress, Americana Hotel, Miami Beach. Sec.-Dir.: A. H. Letton, M.D., 340 Boulevard N.E., Atlanta 30312.

26-30 Association for Research in Vision and Ophthalmology, Sheraton Sandcastle, Sarasota. Sec.-Treas.: Herbert E. Kaufman, M.D., Dept. of Ophthalmology, University of Florida College of Medicine, Gainesville 32601.

MAY

9-15 American Gastroenterological Association, Americana Hotel, Miami Beach. Sec.: John A. Benson Jr., M.D., 3181 S. W. Sam Jackson Park Road, Portland, Ore. 97201.

12 American Society for Gastrointestinal Endoscopy, Miami Beach. Sec.: Joseph A. Rinaldo Jr., M.D., 16001 W. Nine Mile Rd., Southfield, Mich. 48075.

AUGUST

26-29 United Ostomy Association, Diplomat Hotel, Miami Beach. Exec. Dir.: Donald P. Binder, 1111 Wilshire Blvd., Los Angeles 90017.

30-Sept. 2 Western Hemisphere Nutrition Congress, Americana Hotel, Miami Beach. Info.: AMA Council on Foods and Nutrition, 353 N. Dearborn St., Chicago 60610.

OCTOBER

4- 7 American Academy of Family Physicians, Miami Beach. Exec. Dir.: Mr. Mac F. Cahal, JD, Volker Blvd. at Brookside, Kansas City, Mo. 64112.

12-16 Congress of Neurological Surgeons, Americana Hotel, Bal Harbour. Sec.: Bernard S. Patrick, M.D., University Medical Center, 2500 N. State St., Jackson, Miss. 39216.

NOVEMBER

(date to be announced)
Pan American Medical Association, 45th, Miami Beach. Dir. Gen.: Joseph J. Eller, 745 Fifth Ave., New York 10022.

1- 4 Southern Medical Association, Miami Beach. Exec. Dir.: Mr. Robert F. Butts, 2601 Highland Ave., Birmingham, Ala. 35205.

4- 6 Southern Thoracic Surgical Association, Tampa. Sec.-Treas.: James W. Brooks, M.D., 1200 E. Broad St., Richmond, Va. 23219.



On The Run

Bennie Spanjers (Mrs. Arnold J.) and Arnold J. Spanjers, M.D.

The "big push" or goal of the Auxiliary year 1970-71 is for the responsible adult in the health picture. Mrs. R. C. L. Robertson, President, Woman's Auxiliary to the AMA urged auxiliary members to promote positive good health for the people of her community and she stated, "Good health begins at home."

In this 'Age of Aquarius,' many cancers are treated successfully with surgery and irradiation; aneurysms of major vessels are resected, adding many years of useful life; people are salvaged daily in our ICU's because of extrasensitive monitoring equipment; organs are successfully transplanted from one individual to another and, a select few are alive today with the heart of another.

In spite of these miracles of modern medicine, the average life expectancy is not improving as much as it should. Why? Advanced technology is a two-edged sword. Our affluence has enabled the average American to buy a diet for himself that is unhealthy and modern machines have provided us with a living that requires little or no physical exercise. Our world has become very small, very complicated and the pace is fast. All of these together has produced a sedentary, overweight, anxious individual. Add to this two packages of cigarettes daily, a little alcohol, a few tranquilizers and this American is heading for an early grave.

Sadly, the average M.D. also is no shining example of good health. He, too, is overfed, overweight, overworked, overanxious, and does not get enough exercise. He practices preventive medicine all day long but neglects himself; he understands that the 'ounce of prevention is worth the pound of cure,' but he recommends this only for his patients.

Yes, we're the first in labor-saving devices, putting a man on the moon, food production and deaths due to heart disease. Over 55% of the deaths in the United States are caused by cardiovascular disease.

However, we do have a lot of control over our stay here on earth. Good health is not necessarily a matter of luck but something we must work at. A fine book entitled *Aerobics* has been written on this subject by Kenneth Cooper, M.D. Dr. Cooper is a major in the U.S. Air Force and has been charged with the responsibility of Air Force physical fitness. After much experimentation and research on the subject, he concludes that physical fitness is an ability to use large quantities of O_2. He states that people who can do many push ups, sit ups or knee bends are not necessarily in good condition from the cardiovascular standpoint; therefore, he urges the type of exercises that cause a prolonged increase in the pulse rate and produce a shortness of breath. He stresses vigorous exercises such as jogging, swimming, tennis and handball—these exercises build up vital capacity, exercise the heart muscle, and increase the cardiac muscle perfusion. A cardiac reserve is built up so that in times of stress, large amounts of blood can be moved by the heart.

People who work at this type of program will notice a marked decrease in the resting pulse; blood pressures are generally lower, while hemoglobin and blood volume increases. The incidence of heart attack is much lower in those who are physically fit and should a heart attack occur, the chances of recovering are much better. As an added bonus, the vigorous exercises help to relieve a lot of nervous tension.

So, if you are one of many who have neglected

Editor's Note: The president of our Woman's Auxiliary wrote asking that the above be signed jointly and she explains in her letter: "My dear spouse also helped write the article . . . For the past couple of years he has been lecturing on this subject and really is sold on it. He looks like it, too. He is the most physically fit man at 46 years of age in Winter Haven."

Madam President, my hat is off to you!

your health, buy the *Aerobics* book, read it, and then embark on a program of useful exercise. This should be done cautiously at first, as too much too soon will result in sore ankles, swollen knees, shin splints and blisters. With complications such as these comes discouragement and danger that the whole program will be abandoned. Once physical fitness has been achieved, it can easily be maintained with 7-8 minutes exercise daily, 5-6 times per week. This effort will produce a little honest sweat, but it is a small price to pay for all the benefits.

So your auxiliary really has a "big push" on this year, and it is aimed at you, our doctor husbands. We're going to help you lose weight with a big push away from the table. Your cholesterol count will be lowered by a push away from fatty foods; more relaxation time will push away the mental tension and to really be 'in' this year, you'll have to push away from smoking. We're going to shove, not push, you toward some form of regular physical activity. We're going to have an extra big push to keep you literally on the run (we'll even chase you Dogpatch style.)

You all are very special to us, so first of all, we're going to make you physically fit and then work on our communities. For like charity, gentlemen, we believe good health begins at home.



Dr. and Mrs. Spanjers
"On the Run"

DOCTOR, MARK THESE

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Ninety-Seventh Annual Meeting

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Warnings: Photodynamic reactions have been produced by tetracyclines. Natural and artificial sunlight should be avoided during therapy. Stop treatment if skin discomfort occurs. With renal impairment, systemic accumulation and hepatotoxicity may occur. In this situation, lower doses should be used and serum estimations may be necessary during prolonged therapy. Tooth staining and enamel hypoplasia may be induced during tooth development (last trimester of pregnancy, neonatal period and childhood).

Precautions: Mycotic or bacterial superinfections may occur. Infants may develop increased intracranial pressure with bulging fontanels. Cases of gonorrhea with a suspected primary lesion of syphilis should have darkfield examinations before receiving treatment. In all other cases where concomitant syphilis is suspected, monthly serological tests should be performed for a minimum of 4 months.

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WANTED: GP as third man in partnership. General practice including some Ob. Boynton Beach area, lower East coast. Phone (305) 732-2701.

Specialists

ASSOCIATE OR LOCUM TENENS in well established urological practice in S. E. Florida area. Excellent hospitals. Proper applicant could lead to future purchase. Write C-967, P.O. Box 2411, Jacksonville, Florida 32203.

PSYCHIATRIST WANTED for private practice in excellent family town, two major universities, junior college, state capital, trade area of 350,000. Modern, 400-bed hospital five minutes from residential area. Contact: Royce V. Jackson, M.D., P.A. or Robert W. Miles, M.D., 1322 North Magnolia Drive, Tallahassee, Florida 32303, phone (904) 877-3102.

RADIOLOGY THERAPIST WANTED: Or radiologist willing to do therapy half time. Hospital practice on the East coast with two other radiologists in a professional association. Write C-979, P.O. Box 2411, Jacksonville, Fla. 32203.

ANESTHESIOLOGIST WANTED in North Palm Beach, Florida, a 90-bed progressive community hospital. Must be board certified or board eligible. Contact Chief, Division of Surgery, Palm Beach Gardens Community Hospital, 3360 Burns Road, Palm Beach Gardens, Florida 33403.

RADIOLOGIST WANTED in North Palm Beach, Florida, a 90-bed progressive community hospital. Must be board certified or board eligible. New vascular room. Contact, Chief of Staff, Palm Beach Gardens Community Hospital, 3360 Burns Road, Palm Beach Gardens, Florida 33403.

FLORIDA LICENSED INTERNIST OR GP for association with certified internist, cardiologist in Miami Beach. Salary to start; leading to partnership. Write Elliott C. Cohen, M.D., 1688 Meridian Avenue, Miami Beach, Florida 33139.

NEW CENTRAL FLORIDA multispecialty clinic urgently needs certified internist to head department. Immediate ownership participation. $5,000 cash bonus for moving and settling in. Salary and fringes competitive at upper levels. Unusual ground floor opportunity with unlimited growth potential for personable, active, highly principled physician. Write C-981, P.O. Box 2411, Jacksonville, Florida 32203.

UNUSUAL OPPORTUNITY—FLORIDA: INTERNAL MEDICINE AND CARDIOLOGY. Immediate opening, North Miami, private practice. ICU and CCU training preferred. Excellent hospital cardiology opening; Florida license. Associate retiring soon. Write C-980, P.O. Box 2411, Jacksonville, Fla. 32203 or Phone: (Call collect after 10 p.m. (EST) (305) 866-9660.

INTERNIST WANTED: Preferably under 35, for addition to established corporate, 4 man family practice group in Cape Canaveral area. Retirement and profit-sharing programs. Salary first year, partnership thereafter. Attractive complete facilities, including newer laboratory equipment, consulting radiologist who does fluoroscopic work on the premises, and pharmacy. Space and equipment adequate for expansion with no initial investment. Contact A. F. Stratton Jr., M.D., Brevard Medical Group, P.O. Box 746, Cocoa, Florida 32922. Phone: (305) 636-2621.

Miscellaneous

GENERAL PRACTITIONERS OR INTERNISTS: One or two to join established GP in forming a group in rapidly growing area in central Florida. Semi-rural community, suburb of large city, good schools with balanced trouble free integration already accomplished. Write C-972, Post Office Box 2411, Jacksonville, Florida 32203.

EXCELLENT OPPORTUNITIES in a lovely location on the Gulf of Mexico for the following practitioners: General practitioner, pediatrician, ENT, dermatologist and ophthalmologist. Write C-901, P.O. Box 2411, Jacksonville, Fla. 32203.

EMERGENCY ROOM: Attractive openings for hospital commencing its own emergency room service. Located in North Florida near Jacksonville area. Reply to C-961, P.O. Box 2411, Jacksonville, Fla. 32203.

ADDITIONAL PHYSICIANS NEEDED for group practice. All fields of practice in short supply, especially GP, pediatrics, allergy, dermatology, geriatrics, internal medicine and obstetrics. County shows extremely rapid growth. New hospital to be completed in near future. Contact Charlotte Inter-Medic Health Center, 1120 South Tamiami Drive, Port Charlotte, Florida 33950. Telephone: (813) 625-7121.

WANTED IMMEDIATELY: Private emergency room physician. Corporate group needs fifth physician in teaching hospital, Orlando, Florida. Prefer GP. Florida license required. Contact Bruce S. Webster, M.D. (305) 647-5728 or Robert Gay, M.D. (305) 422-0159.

ADDITIONAL PHYSICIANS URGENTLY NEEDED: GP, internal medicine, obstetrics, pediatrics and general surgery. Modern office immediately available. Contact Pat M. Woodward, M.D., P.O. Box 819, Quincy, Florida 32351.

PHYSICIANS NEEDED: Tallahassee, Leon County, Northwest. General practitioners, internists and pediatricians in particular. Inquiries regarding practice in this community can be forwarded to J. Orson Smith Jr., M. D., Chairman, Physician Procurement Committee, 1433 Miccosukee Rd., Tallahassee, Fla. 32303. Phone (904) 877-1145.

30 PHYSICIAN multispecialty group located Florida Gulf Coast must add internist, general practitioner, orthopedist, anesthesiologist, urologist, and an ENT physician. Ground broken to add 110 beds to present 202 beds. Ground soon to be broken on large clinic addition. Long range plans to 650 beds and 75 physician clinic. No investment required. Progressive, rapidly growing community with abundance of recreation and cultural opportunities. Contact D. M. Schroder, Administrator, Mease Hospital and Clinic, Dunedin, Florida 33528.

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FAMILY PHYSICIAN: Desires group practice with other M.D.'s 16 years experience in solo rural family practice. U.S. medical school graduate—1951, internship and surgical residency at a university medical center; Diplomate National Board of Medical Examiners, Diplomate of American Board of Family Practice—1970, member American Academy of General Practice, member American Society of Teachers of Family Practice; Florida Medical License. Salary requirement—$40,000. Write C-968, P.O. Box 2411, Jacksonville, Florida 32203.

LOCATION OR ASSOCIATION DESIRED: Florida intern desires association, group practice, or location for solo practice in Florida. Write Larry E. Stevens, M.D., 209 S. Hubert, Tampa, Florida 33609.

ANESTHESIOLOGIST interested in locating in small inland city in Florida. Age 37, U.S. graduate, Florida license. Write C-978, P.O. Box 2411, Jacksonville, Florida 32203.

PATHOLOGIST: 40 years old, native U.S., experienced director with both C.P. and A.P. boards. Florida license, highest qualifications and motivation. Write C-982, P. O. Box 2411, Jacksonville, Florida 32203.

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SITUATION WANTED: 40 year old General Practitioner with 15 years' experience in own private practice desires association with, or purchase of private and/or industrial practice in Miami or Dade County area. Would also consider association. Write C-983, P.O. Box 2411, Jacksonville, Fla. 32203.

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Reminder.

Send in your favorite photographs or color slides which might be appropriate for the cover of the JOURNAL. *They will be handled with care and returned to you.*

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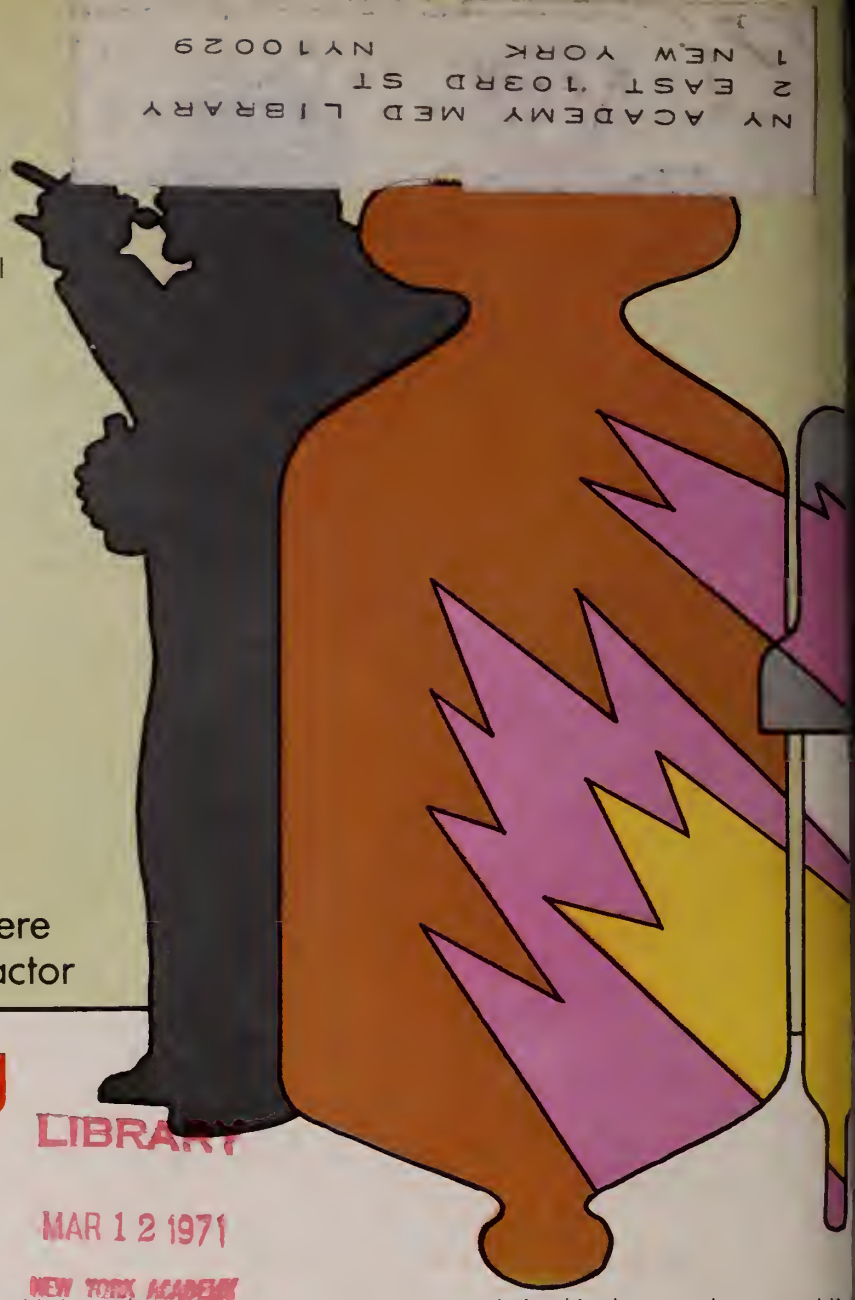
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Precautions: In the elderly ond debilitated, and in children over six, limit ta smallest effective dasage (initially 10 mg or less per doy) ta preclude ataxia ar oversedation, increasing gradually as needed ond talerated. Not recommended in children under six. Though generally nat recammended, if cambination therapy with other psychatrapics seems indicated, corefully consider individuol pharmacalogic effects, porticularly in use of potentioting drugs such os MAO inhibitars and phenothiazines. Observe usuol precautions in presence af impoired renol or hepatic function. Paradaxicol reoctions (e.g., excitement, stimulation and acute rage) have been reparted in psychiatric patients and hyperactive aggressive children. Employ usual precautians in treatment of onxiety stotes with evidence of impending depressian; suicidal tendencies may be present and protective meosures necessary. Variable effects an blood coogulotion hove been reparted very rarely in patients receiving the drug and orol onticoogulonts; cousol relotionship hos not been estoblis clinicolly.

Adverse Reactions: Drowsiness, ota and confusian moy occur, especiall the elderly and debilitated. These reversible in mast instances by pra dosoge adjustment, but ore olso o sionolly observed ot the lower dos ranges. In a few instances syncope been reparted. Alsa encountered isoloted instances of skin eruptio edema, minar menstrual irregulari nauseo and constipatian, extrapyr dol symptams, increased and decre libido—all infrequent ond generolly trolled with dosoge reductian; chang EEG patterns (law-voltage fast acti may appear during and after treatm blaad dyscrosias (including agranul tosis), jaundice and hepatic dysfunc have been reported occasionally, mak periodic blaad counts and liver funct tests advisable during pratracted thera

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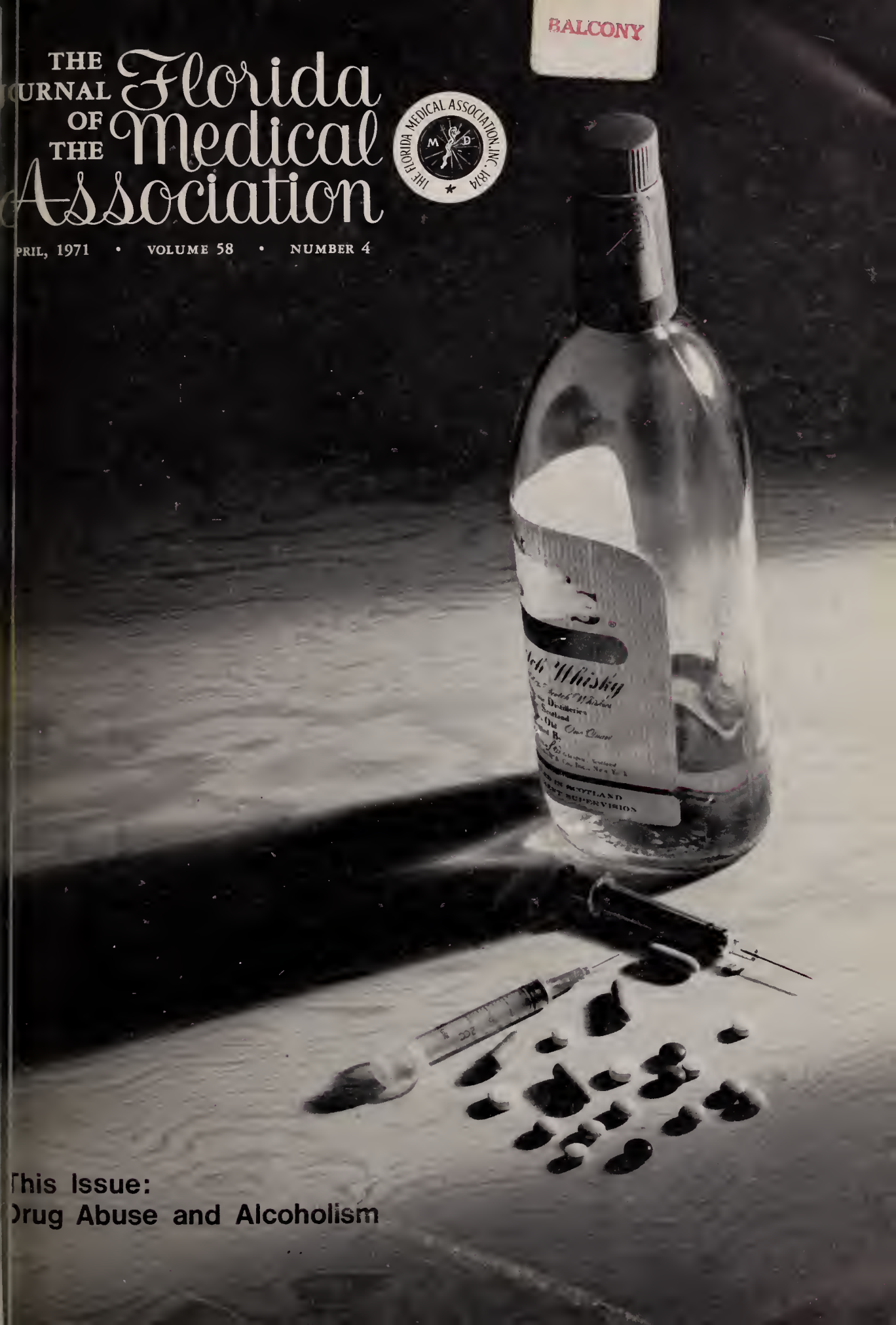
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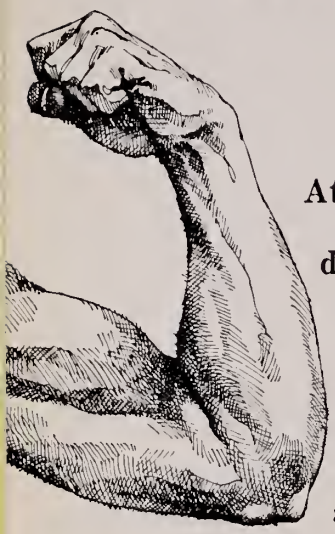
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Drug Abuse and Alcoholism

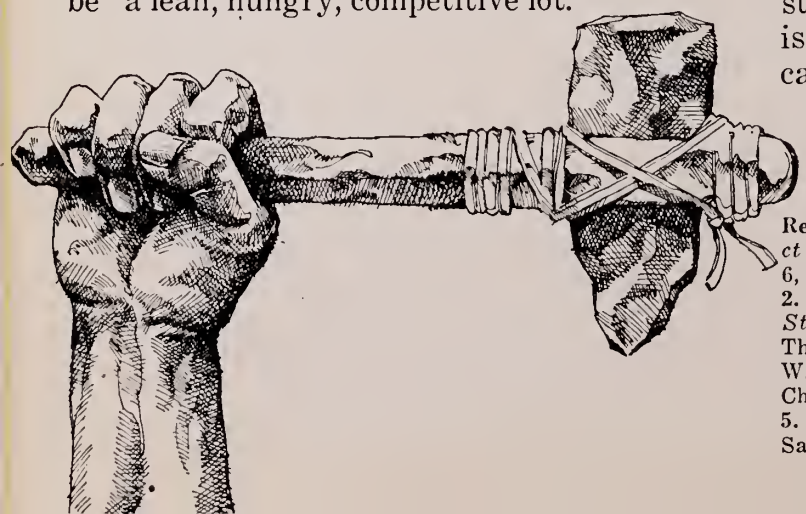
IF MORE MEN CRIED



At least seventy-five out of one hundred adults with duodenal ulcers are men.[1] Why? It may be significant that duodenal ulcer patients tend to crave recognition and are "especially vulnerable to threats to their manly assertive independence."[2]

Hypersecretion—an atavistic response. Stewart Wolf, who, with Harold G. Wolff, studied the personalities of duodenal ulcer patients, wonders if masculine competitiveness is related to "an atavistic urge to devour an adversary." It is striking, he reports, that an accentuation of gastric acid secretion and motility can be "induced in ulcer patients by discussions that arouse feelings of inadequacy, frustration and resentment."[2]

By chance? A lean, hungry lot. Was the link between emotions and gastric hyperacidity acquired through mutation to serve a purpose? During man's jungle period of evolution, the investigator points out, a male dealt with a foe by killing and devouring it. "It may be more than coincidence," he concludes, that peptic ulcer patients appear to be "a lean, hungry, competitive lot."[3]



Big boys don't cry. If more men cri[ed] maybe fewer would wind up with duode[nal] ulcers. But men will be men—the sum tota[l of] their genes and what t[hey] are taught. Schottsta[edt] observes that whe[n a] mother admonishes [her] son who has hurt hims[elf] that big boys don't cry, [she] is teaching h[im] stoicism.[4] Crying is [the] negation of everythi[ng] society thinks of as ma[n]. A boy starts defending [his] manhood at an early a[ge].

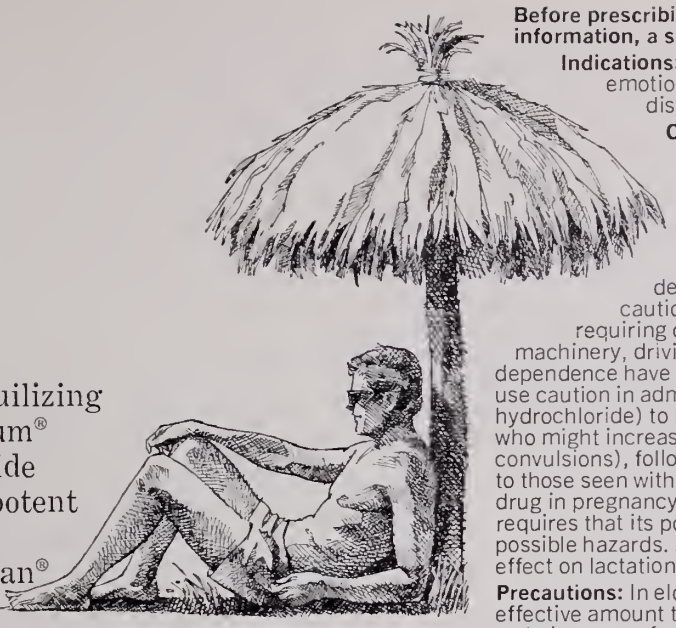


Take away str[ess,] you can take away sympto[ms.]

There is no question that stress play[s a] role in the etiology of duodenal ulc[er.] Alvarez[5] observes that many a man with[an] ulcer loses his symptoms the day he shuts [up] the office and starts out on a vacation. [The] problem is, the type of man likely to have [an] ulcer is the type least likely to take [big] vacations or take it easy at work.

The rest cure vs. the two-way action of Librax.® For most patients, the rest cur[e is] as unrealistic as it is desirable. Still, [the] stress factor must be dealt with. And h[ere] is where the dual action of adjunctive Lib[rax] can help. Librax is the only drug that c[an-]

References: 1. Silen, W.: "Peptic Ulcer," in Wintrobe, M. M., *et al.* (eds.): *Harrison's Principles of Internal Medicin* ed. 6, New York, McGraw-Hill Book Company, 1970, p. 44. 2. Wolf, S., and Goodell, H. (eds.): *Harold G. Wolff's Stress and Disease*, ed. 2, Springfield, Ill., Charl C Thomas, 1968, pp. 68-69. 3. *Ibid.*, p. 257. 4. Schottstedt, W. W.: *Psychophysiologic Approach in Medical Praice*, Chicago, Ill., The Year Book Publishers, Inc., 1960, p 63. 5. Alvarez, W. C.: *The Neuroses*, Philadelphia, Pa., W B. Saunders Company, 1951, p. 384.



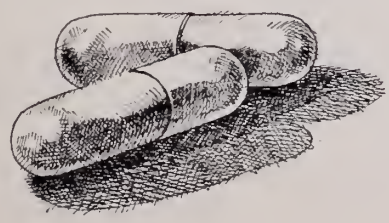
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is to succeed. During this adjustment
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can help establish a desirable environ-
for healing.

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with the discomfort of stress—both
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xacerbate duodenal ulcer.

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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Indicated as adjunctive therapy to control emotional and somatic factors in gastrointestinal disorders.

Contraindications: Patients with glaucoma; prostatic hypertrophy and benign bladder neck obstruction; known hypersensitivity to chlordiazepoxide hydrochloride and/or clidinium bromide.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering Librium (chlordiazepoxide hydrochloride) to known addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards. As with all anticholinergic drugs, an inhibiting effect on lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude development of ataxia, oversedation or confusion (not more than two capsules per day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions (e.g., excitement, stimulation and acute rage) have been reported in psychiatric patients. Employ usual precautions in treatment of anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: No side effects or manifestations not seen with either compound alone have been reported with Librax. When chlordiazepoxide hydrochloride is used alone, drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally with chlordiazepoxide hydrochloride, making periodic blood counts and liver function tests advisable during protracted therapy. Adverse effects reported with Librax are typical of anticholinergic agents, *i.e.*, dryness of mouth, blurring of vision, urinary hesitancy and constipation. Constipation has occurred most often when Librax therapy is combined with other spasmolytics and/or low residue diets.

in the treatment of duodenal ulcer

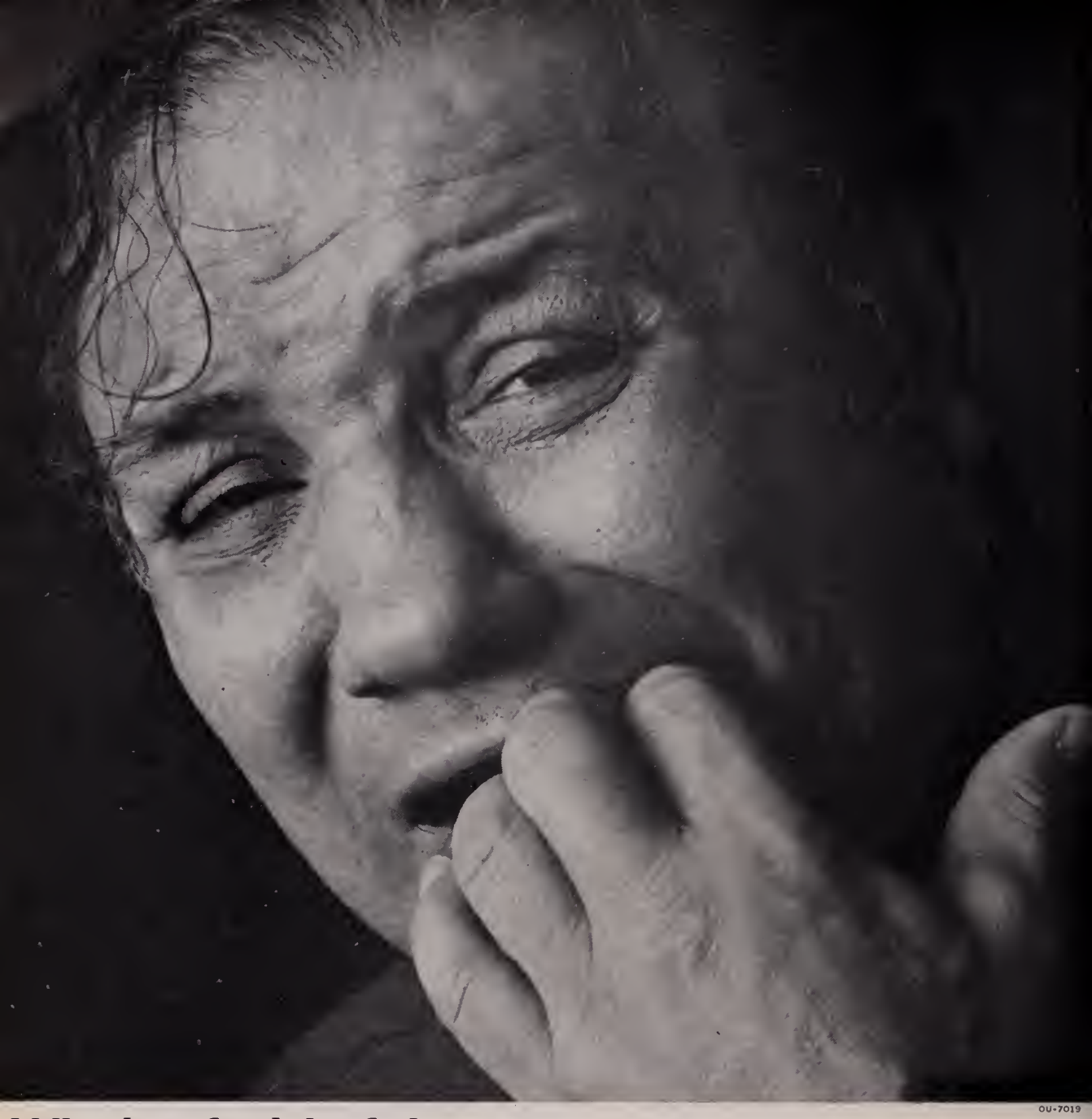
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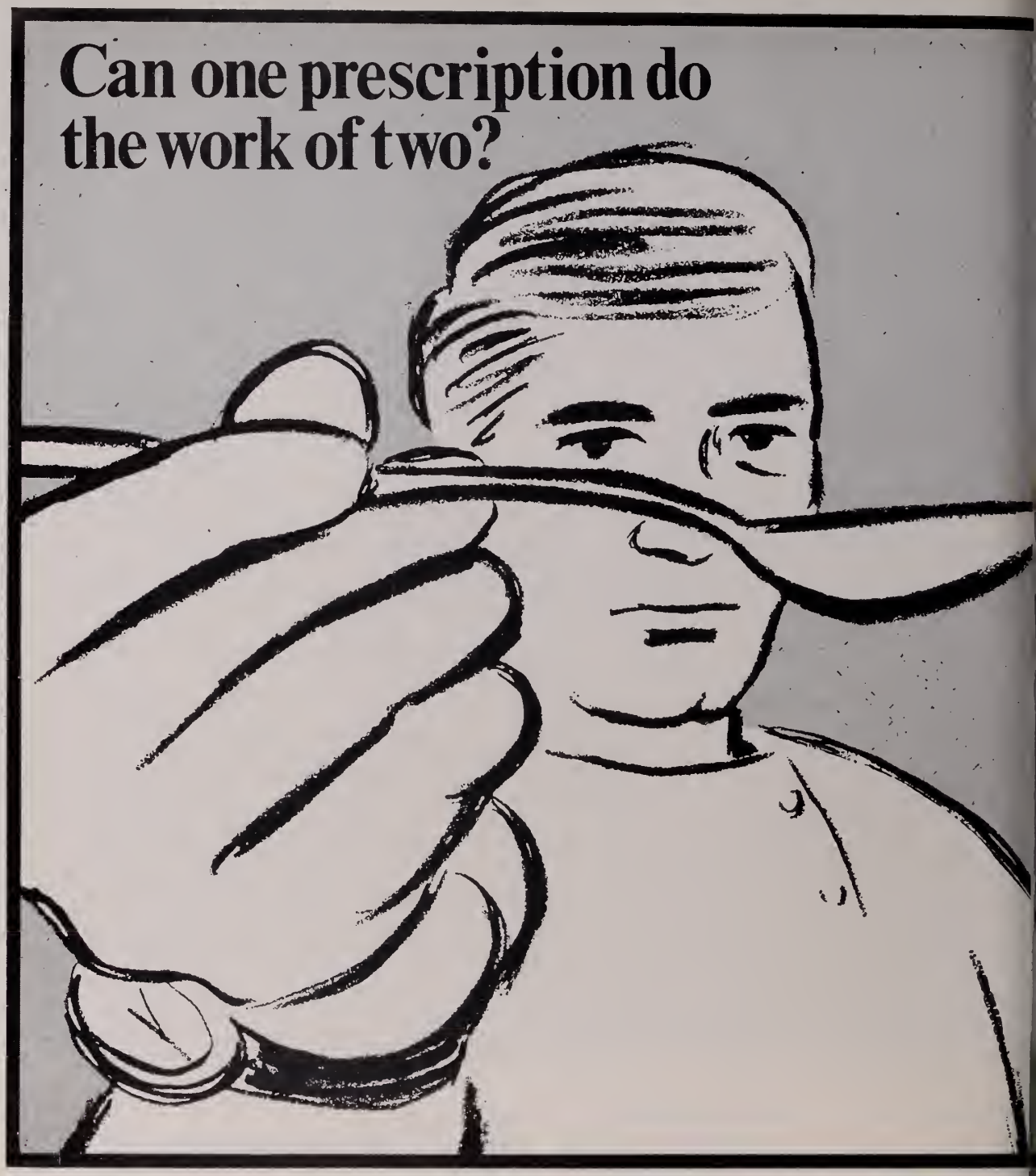
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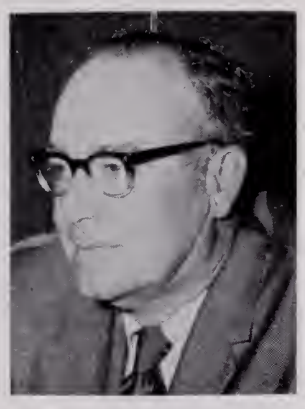
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atropine sulfate	0.0194 mg.	0.0194 mg.	0.0582 mg.
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Brief Summary. Blurring of vision, dry mouth, difficult urination, and flushing or dryness of the skin may occur on higher dosage levels, rarely on usual dosage. Administer with caution to patients with incipient glaucoma or urinary bladder neck obstruction. Contraindicated in acute glaucoma, advanced renal or hepatic disease or a hypersensitivity to any of the ingredients.

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President's Page



Let's Keep Blue Shield

Lately, we hear a lot about how poorly Blue Shield is representing the doctors. Compared to whom? I don't claim the Board of Directors of Blue Shield, or its administration, is perfect. They both have made and will make plenty of mistakes. Who doesn't?—Ford made the Edsel, and their board is much higher paid.

You know, the major criticisms of Blue Shield have been concerning their handling of Medicare. Blue Shield took on Part 'B' of Medicare with grave reservations, and only at the insistence of the FMA House of Delegates. In spite of the errors, by and large this has been a good deal for FMA and a bad one for Blue Shield.

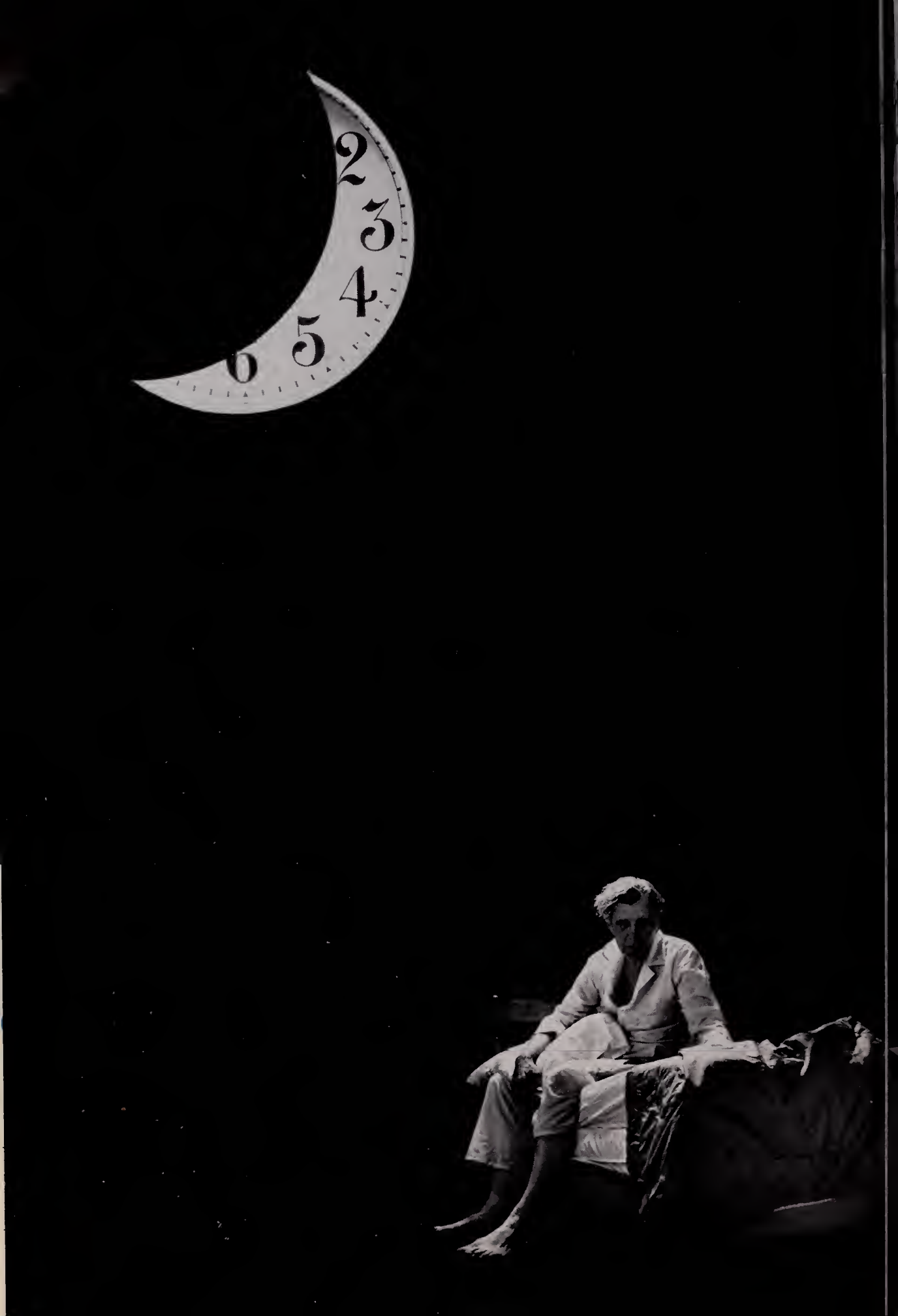
Consider the alternative: if Blue Shield were not the intermediary, we would have had a private insurance company. Florida physicians would have little or no influence with such a company's decisions; with Blue Shield we elect the Board, and so have a major influence. The great majority of the Board members have the same philosophy as I—and I believe, most of you.

In my opinion, those who are advocating that Blue Shield resign as fiscal intermediary are making a bad mistake. First, you must realize Blue Shield cannot boss SSA. Then, remember that what you would get in replacement would inevitably be worse.

We all know there are a lot of imperfections in our delivery of health care, but most of us strongly believe we should try to improve our present system; not change to another system of medical care which has proven inferior in other countries, and with whose political philosophy we disagree. The analogy is there.

We know Blue Shield has its faults, but let us not toss it away for another intermediary which would be worse; rather, let us insist that Blue Shield improve. I'm sure it can and will. For the most part Blue Shield does a real good job anyway. We doctors just don't tolerate many errors. Personally, I like Blue Shield and strongly advise you to keep working with it.

James T. Cook, Jr., M.D.


2
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he night shift of depression... insomnia

Depression is a 24-hour-a-day problem. And insomnia is often in its nocturnal expression. In fact, insomnia may be a key symptom in establishing the diagnosis of depression.

ELAVIL HCl (Amitriptyline HCl, MSD) may prove quite helpful when you have arrived at such a diagnosis. Unlike psychic energizers or agents that merely elevate mood, ELAVIL HCl embodies a mild antianxiety action which manifests itself even before the fundamental antidepressant activity of the drug becomes evident. Daytime drowsiness occurs in some patients, usually within the first few days of therapy.

NOTE: Not recommended during the acute recovery phase following myocardial infarction. Patients with cardiovascular disorders should be watched closely; arrhythmias, sinus tachycardia, and prolongation of the conduction time have been reported, particularly with high doses; myocardial infarction and stroke have been reported with drugs of this class. Close supervision is required for hyperthyroid patients or those receiving thyroid medication. Concurrent electroshock therapy may increase the hazards of therapy; such treatment should be limited to patients for whom it is essential. Discontinue the drug several days before elective surgery if possible.

Contraindications: Known hypersensitivity. Should not be given concomitantly with or within at least 14 days following the discontinuance of monoamine oxidase inhibitor. Then initiate dosage of amitriptyline HCl cautiously with gradual increase in dosage until optimum response is achieved. Not recommended during the acute recovery phase following myocardial infarction or for patients under 12 years of age.

Warnings: May block the antihypertensive action of guanethidine or similarly acting compounds. Should be used with caution in patients with a history of seizures or urinary retention, or with narrow-angle glaucoma or increased intraocular pressure. Patients with cardiovascular disorders should be watched closely; arrhythmias, sinus tachycardia, and prolongation of the conduction time have been reported, particularly with high doses; myocardial infarction and stroke have been reported with drugs of this class. Close supervision is required for hyperthyroid patients or those receiving thyroid medication. May impair mental and/or physical abilities required for performance of hazardous tasks, such as operating machinery or driving a motor vehicle. Safe use during pregnancy and lactation has not been established; in pregnant patients, nursing mothers, or women who may become pregnant, weigh possible benefits against possible hazards to mother and child.

Precautions: When used to treat the depressive component of schizophrenia, psychotic symptoms may be aggravated; in manic-depressive psychosis, depressed patients may experience a shift toward the manic phase, and paranoid delusions, with or without associated hostility, may be aggerated; in any of these circumstances, it may be advisable to reduce the dose of amitriptyline HCl, or to use a major tranquilizing drug, such as perphenazine, concurrently.

When given with anticholinergic agents or sympathomimetic drugs, close supervision and careful adjustment of dosages are required. May enhance the response to alcohol and the effects of barbiturates and other CNS depressants. The possibility of suicide in depressed patients remains during treatment and until significant remission occurs; this type of patient should not have easy access to large quantities of the drug. Concurrent electroshock therapy may increase the hazards of therapy; such treatment should be limited to patients for whom it is essential. Discontinue the drug several days before elective surgery if possible.

Adverse Reactions: *Note:* Included in this listing are a few adverse reactions not reported with this specific drug. However, pharmacological similarities among the tricyclic antidepressant drugs require that each reaction be considered when amitriptyline is administered.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitation, myocardial infarction, arrhythmias, heart block, stroke. *CNS and Neuromuscular:* Confusional states; disturbed concentration; disorientation; delusions; hallucinations; excitement; anxiety; restlessness; insomnia; nightmares; numbness, tingling, and paresthesias of the extremities; peripheral neuropathy; incoordination; ataxia; tremors; seizures; alteration in EEG patterns; extrapyramidal symptoms. *Anticholinergic:* Dry mouth, blurred vision, disturbance of accommodation, constipation, paralytic ileus, urinary retention, dilatation of urinary tract. *Allergic:* Skin rash, urticaria, photosensitization, edema of face and tongue. *Hematologic:* Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia. *Gastrointestinal:* Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, parotid swelling. *Endocrine:* Testicular swelling and gynecomastia in the male, breast enlargement and galactorrhea in the female, increased or decreased libido. *Other:* Dizziness, weakness, fatigue, headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, drowsiness, jaundice. *Withdrawal Symptoms:* Abrupt cessation of treatment after prolonged administration may produce nausea, headache, and malaise; these are not indicative of addiction.

How Supplied: Tablets containing 10 mg and 25 mg amitriptyline HCl, in single-unit packages of 100 and bottles of 100, 1000, and 5000; tablets containing 50 mg amitriptyline HCl, in single-unit packages of 100 and bottles of 100 and 1000; for intramuscular use, in 10-cc vials containing per cc: 10 mg amitriptyline HCl, 44 mg dextrose, and 1.5 mg methylparaben and 0.2 mg propylparaben as preservatives.

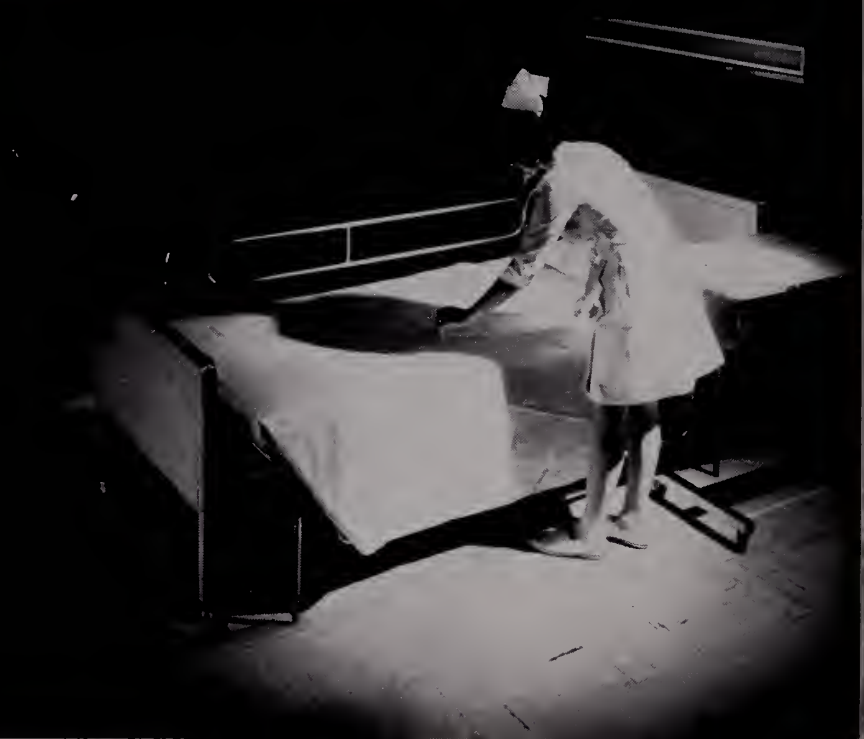
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when the diagnosis is depression

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Contraindications: Concurrently with MAO inhibitors, in patients hypersensitive to this drug; in emotionally unstable patients susceptible to drug abuse.

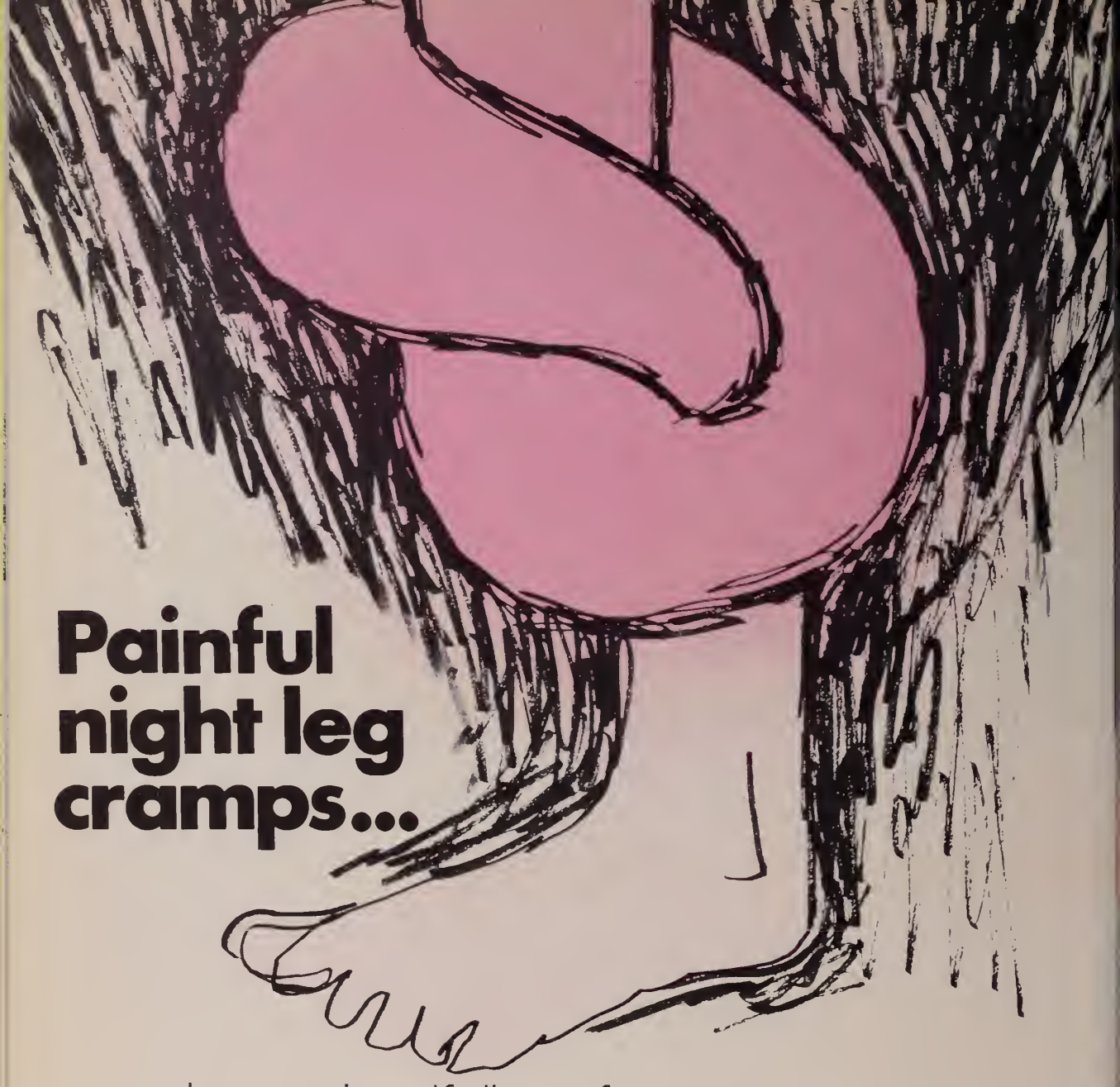
Warning: Although generally safer than the amphetamines, use with great caution in patients with severe hypertension or severe cardiovascular disease. Do not use during first trimester of pregnancy unless potential benefits outweigh potential risks.

Adverse Reactions: Rarely severe enough to require discontinuation of therapy, unpleasant symptoms with diethylpropion hydrochloride have been reported to occur in relatively low incidence. As is characteristic of sympathomimetic agents, it may occasionally cause *CNS effects* such as insomnia, nervousness, dizziness, anxiety, and jitteriness. In contrast, CNS depression has been reported. In a few epileptics an increase in convulsive episodes has been reported. *Sympathomimetic cardiovascular effects* reported include ones such as tachycardia, precordial pain, arrhythmia, palpitation, and increased blood pressure. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride; this was an isolated experience, which has not been reported by others. *Allergic phenamena* reported include such conditions as rash, urticaria, ecchymosis, and erythema. *Gastraintestinal effects* such as diarrhea, constipation, nausea, vomiting, and abdominal discomfort have been reported. Specific reports on the hematopoietic system include two each of bone marrow depression, agranulocytosis, and leukopenia. A variety of miscellaneous adverse reactions have been reported by physicians. These include complaints such as dry mouth, headache, dyspnea, menstrual upset, hair loss, muscle pain, decreased libido, dysuria, and polyuria.

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T-107/4/71/U S PATENT NO 3,001,910

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Q103



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Available: Bottles of 12, 36 and 60 tablets.


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Warning: Data supporting the use of PERITRATE (pentaerythritol tetranitrate) during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety. This drug can act as a physiological antagonist to norepinephrine, acetylcholine, histamine, and many other agents.
Precautions: Should be used with caution in patients who have glaucoma. Tolerance to this drug, and cross-tolerance to other nitrites and nitrates may occur.
Adverse Reactions: Side effects reported to date have been predominantly related to rash (which requires discontinuation of medication) and headache and gastrointestinal distress, which are usually mild and transient with continuation of medication. In some cases severe persistent headaches may occur. In addition, the following adverse reactions to nitrates such as pentaerythritol tetranitrate have been reported in the literature: (a) Cutaneous vasodilatation with flushing. (b) Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop. (c) An occasional individual exhibits marked sensitivity to the hypotensive effects of nitrite and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration and collapse) can occur, even with the usual therapeutic doses. Alcohol may enhance this effect.
Dosage: PERITRATE SA Sustained Action (pentaerythritol tetranitrate) 80 mg (b.i.d. on an empty stomach), 1 tablet immediately on arising and 1 tablet 12 hours later.
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Warning: Tablets containing phenobarbital may be habit forming. PERITRATE with Nitroglycerin—pentaerythritol tetranitrate 10 mg with nitroglycerin 0.3 mg, bottles of 50 tablets.

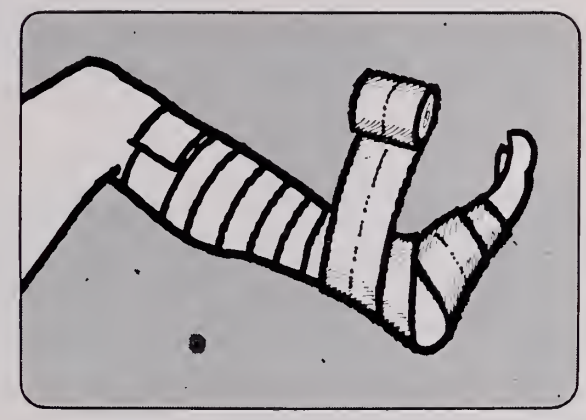
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Potassium (from Potassium Sulfate)	2.5 mg.
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ACTION AND USES—*DOSAGE:* 1 tablet after breakfast and supper, or as required. In females, 3-week courses of therapy are recommended followed by a 1-week rest period. Withdrawal bleeding may occur during the rest period. *PRECAUTIONS:* Administer cautiously to female patients who tend to develop excessive hair growth or other signs of masculinization. *CONTRAINDICATIONS:* Patients in whom estrogen or androgen therapy should not be used, as in carcinoma of the breast, genital tract, or prostate, and in patients with a familial tendency to these types of malignancy. *AVAILABLE:* Bottles of 30, 100, and 500 tablets.

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THE PHARMACOLOGICAL BASIS OF THERAPEUTICS
3rd Edition, page 522



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Contraindicated in glaucoma. Use cautiously in prostatic hypertrophy. Side-effects of toxic dose of atropine: flushing, dryness of mouth, cycloplegia, tachycardia and urinary retention.

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WARNING: Do not give in advanced kidney or liver disease. PRECAUTIONS: Trocinate relaxes all smooth muscles. Large dosage or prolonged usage may cause feeling of weakness or can theoretically precipitate gall-bladder colic, due to relaxing the vascular and duct systems. Caution should be observed in patients with urinary bladder obstruction. DOSAGE: 400 mg. May be repeated in 4 hours. After relief, lengthen the dose frequency. (see side note)

NOTE: *The high therapeutic index of Trocinate permits the administration in dosage sufficient to relieve smooth muscle spasm promptly. 400 mg. dosage usually creates a therapeutic blood level. In reducing dosage after relief, lengthening the time between dosage rather than lessening the recommended dose is preferable. The prompt direct action allows a consciousness of the first suggestion of return of symptom . . . a guide to dose spacing and to determining when treatment is complete. A prescription for twelve or sixteen 400 mg. tablets will usually correct spasm and leave a few tablets for a reserve.*

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Contraindications: Because of the mild anticholinergic effect of orphenadrine, Norgesic should not be used in patients with glaucoma, pyloric or duodenal obstruction, achalasia, prostatic hypertrophy or obstructions at the bladder neck. Norgesic is also contraindicated in patients with myasthenia gravis and in patients known to be sensitive to aspirin, phenacetin or caffeine.

Since mental confusion, anxiety and tremors have been reported in patients receiving orphenadrine and propoxyphene concurrently, it is recommended that Norgesic not be given in combination with propoxyphene (Darvon®).

Warnings: USE IN PREGNANCY: Since safety of the use of this preparation in pregnancy, during lactation, or in the child-bearing age has not been established, use of the drug in such patients requires that the potential benefits of the drug be weighed against its possible hazard to the mother and child.

USE IN CHILDREN: The safe and effective use of this drug in children has not been established; therefore, the physician must weigh the benefits against the potential hazards.

Precautions: It has been reported that prolonged or excessive use of phenacetin may result in nephrotoxicity. Caution, therefore, should be exercised when Norgesic is administered to patients with renal disorders. It should also be used with caution in patients with tachycardia.

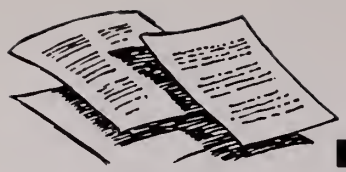
Adverse Reactions: Side effects of Norgesic are those seen with APC or those usually associated with mild anticholinergic agents. These may include tachycardia, palpitation, urinary hesitancy or retention, dry mouth, blurred vision, dilatation of the pupil, increased intraocular tension, weakness, nausea, vomiting, headache, dizziness, constipation, drowsiness, and rarely, urticaria and other dermatoses. Infrequently an elderly patient may experience some degree of confusion. Mild central excitation and occasional hallucinations may be observed. These mild side effects can usually be eliminated by reduction in dosage. One case of aplastic anemia associated with the use of Norgesic has been reported. No causal relationship has been established. **Dosage and Administration:** Adults—1 to 2 tablets 3 to 4 times daily.

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Letters

Dear Dr. Collins:

I have read your editorial concerning the FRMP, and, based on the statements made in the editorial, I can not see how you came to the conclusion that we should continue to support this program.

You stated that in its three years existence, the program has received $1,629,948—our tax money—and, yet has not shown "a paucity of tangible results." You further mentioned "high administrative costs," "confusion of goals," and "personality conflicts."

As far as results are concerned, you mentioned several surveys! (God protect us from more tax-funded surveys), a computerized EKG program (several of which are already commercially available) and a hypertensive survey program.

It seems to me that this is just another example of a federal boondoggle which we are accepting because the money for it is being funded from elsewhere, namely, Washington.

Until we stop condoning this type of program and start thinking of all tax money as if it were coming out of our own pockets, which it truly is, we will continue to play into the hands of those bureaucrats whose main purpose in life, it seems, is to create layer upon layer of bureaucratic control over our lives and practices. This is all being done, of course, in the name of some high sounding goal which could be better achieved through already existing institutions rather than by creating another hierarchy of bureaucracy.

Allen L. Sheer, M.D.

Tampa

Mr. W. Harold Parham
Executive Vice President
Florida Medical Association

Dear Harold:

I greatly appreciate your thoughtfulness in sending me a copy of the Education Issue of the Journal of the Florida Medical Association. I have read it with a great deal of interest and am circulating it among the other staff members of the Division of Medical Education here at the AMA. It is a splendid issue and would be a credit to any journal concerned with medical education.

There are a lot of changes occurring in medical education, and this is an exciting time to be involved in it. It is rather remarkable that the State of Florida which, until less than 20 years ago, had no medical school, now seems rapidly to be assuming a position in the forefront of medical education. Having a man like Ken Penrod in a key position in the office of the Board of Regents seems thoroughly sound. We are fortunate also in having Lou Murray playing an influential role on the Board.

The program at Mayo is a fascinating thing. I am very intrigued by and enthusiastic about the program being developed at FSU-FAMU and the University of Florida. I think, and I certainly hope, that it will become a model that will be widely copied in other institutions and states. Winter Griffith and Manny Suter, and others who have been involved in it, deserve a great deal of credit. The new medical school at the University of South Florida seems to be developing satisfactorily. They have an experienced and capable dean. My old school, Miami, seems to be developing in a way that is consistent with modern trends in medical education.

My own plans are a little uncertain. I tentatively had been planning on retiring next summer when I will be 67½ years old, but that is still a little indefinite. I have enjoyed my work here at the AMA, particularly the delightful group of men I have been working with. Marian and I are thinking of returning to the Miami area to live when I retire, but as I said, that is still a little uncertain.

Thank you again for sending me the Education Issue and congratulations on it!

With kindest personal regards.

Hayden C. Nicholson, M.D.

Dr. Nicholson is Secretary, Advisory Committee on Undergraduate Medical Education, AMA, and former Dean, University of Miami School of Medicine.



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Bensulfoid (See PDR).....65 mg.
Precaution: same as 16 mg. phenobarbital

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Brief Summary of Prescribing Information–9-9/22/69. For complete information consult Official Package Circular.
Indications: Essential hypertension. Use cautiously in patients with renal insufficiency, particularly if they are digitalized.
Contraindications: Anuria, oliguria, active peptic ulceration, ulcerative colitis, severe depression or hypersensitivity to its components contraindicates the use of Salutensin.
Warnings: Small-bowel lesions (obstruction, hemorrhage, perforation and death) have occurred during therapy with enteric-coated formulations containing potassium, with or without thiazides. Such potassium formulations should be used with Salutensin only when indicated and should be discontinued immediately if abdominal pain, distension, nausea, vomiting or gastrointestinal bleeding occurs. Use cautiously, and only when deemed essential, in fertile, pregnant or lactating patients. *Use in Pregnancy:* Thiazides cross the placenta and can cause fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly electrolyte disturbances. Fatal reactions may occur with reserpine during electroshock therapy; discontinue Salutensin 2 weeks before such therapy. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.
Precautions: Azotemia, hypochloremia, hyponatremia, hypochloremic alkalosis and hypokaliemia (especially with hepatic cirrhosis and corticosteroid therapy) may occur, particularly with pre-existing vomiting and diarrhea. Potassium loss or protoveratrine A may cause digitalis intoxication. *Potassium loss responds to potassium-rich foods, potassium chloride or, if necessary, discontinuation of therapy. Stop therapy if protoveratrine A induces digitalis intoxication.* Serum ammonia elevation may precipitate coma in precomatose hepatic cirrhotics. Discontinue therapy 2 weeks before surgery or if myocardial irritability, progressive azotemia or severe depression occur. Exercise caution in patients with chronic uremia, angina pectoris, coronary thrombosis or extensive cerebral vascular disease *or bronchial asthma* and in those with a history of peptic ulceration or bronchial asthma; in post-sympathectomy patients; in patients on quinidine; and in patients with gallstones, in whom biliary colic may occur. Patients who have diabetes mellitus or who are suspected of being prediabetic should be kept under close observation if treated with this agent.
Adverse Reactions: Hydroflumethiazide: Skin rashes (including exfoliative dermatitis), skin photosensitivity, urticaria, necrotizing angiitis, xanthopsia, granulocytopenia, aplastic anemia, orthostatic hypotension (potentiated with alcohol, barbiturates or narcotics), allergic glomerulonephritis, acute pancreatitis, liver involvement (intrahepatic cholestatic jaundice), purpura plus or minus thrombocytopenia, hyperuricemia, hyperglycemia, glycosuria, malaise, weakness, dizziness, fatigue, paresthesias, muscle cramps, skin rash, epigastric distress, vomiting, diarrhea and constipation. *Reserpine:* Depression, peptic ulceration, diarrhea, Parkinsonism, nasal stuffiness, dryness of the mouth, weight gain, impotence or decreased libido, conjunctival injection, dull sensorium, deafness, glaucoma, uveitis, optic atrophy, and, with overdosage, agitation, insomnia and nightmares. *Protoveratrine A:* Nausea, vomiting, cardiac arrhythmia, prostration, blurring vision, mental confusion, excessive hypotension and bradycardia. (Treat bradycardia with atropine and hypotension with vasopressors.)
Usual Dose: 1 tablet b.i.d.
Supplied: Bottles of 60, 600, and 1000 scored 50 mg. tablets.

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hydroflumethiazide, 50 mg./reserpine, 0.125 mg. protoveratrine A, 0.2 mg.





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THE JOURNAL OF THE Florida Medical Association

APRIL, 1971 • VOLUME 58 • NUMBER 4

Ad Hoc Committee on Drug Abuse

ROBERT P. JOHNSON, M.D.

At its meeting held in May 1970, the House of Delegates of the Florida Medical Association voted to establish an Ad Hoc Committee on Drug Abuse. The scope of the committee's activity was to include alcohol and tobacco. The members were appointed by the president and included representatives from the Florida Pharmaceutical Association, Florida Peace Officers Association, Florida Department of Law Enforcement, FMA Woman's Auxiliary, State Department of Education, Florida Education Association, Board of Regents, Comprehensive Health Planning Council of Northeast Florida, State Division of Health, Florida Bar, the Clergy, and the Florida Medical Association. This committee, as constituted, makes it one of the most unique organs of the Association and encompasses almost all of the professions vitally concerned with the problems of drug abuse.

At the committee's first meeting in Jacksonville on November 17, 1970, it was decided to concentrate our efforts in the area of dangerous drugs. This certainly was not to lessen the importance of the problems existing in our state from alcohol and tobacco, but it was our feeling that the matter of the illicit use of drugs by our young people today represented an area of immediate concern and warranted our concentrated effort. One only needs to read the daily newspaper to have the scope of this problem brought into shocking prominence. The widespread use of marijuana and hallucinogenic drugs has reached into just about every city and town in the state. The increasing use of hard narcotics has been frightening, to say the least. With these facts before us we set out to survey the situation and attempt to find the areas where we could best be of assistance to the Association and to the state.

One of the first actions of the committee was to commend the State Department of Education and Mr. Louis Morelli for their accomplishments in implementing drug education in the primary and secondary schools of Florida. Mr. Morelli has been heading up this program and doing an outstanding job. At the present time the committee is working with him to establish some guidelines for school boards, administrators, teachers, and other personnel in dealing with drug problems in the schools.

Private Physicians' Role

The committee has been and continues to be concerned about the role of the private physician in dealing with the drug problem in his community. More and more youngsters and distraught parents are looking to him for guidance and help. To quote a portion of an editorial appearing in the January 11, 1971, issue of the American Medical News, "A more realistic approach to the problem is needed, and the medical profession must lead the way. Because of his education and his standing in the community, the physician is the ideal individual to educate those who would use drugs about the dangers, and to educate the public about

Dr. Johnson is Chairman of the Ad Hoc Committee on Drug Abuse, Florida Medical Association.

ways to meet the problem." Bertram S. Brown, M.D., Director of the National Institute of Mental Health, has stated that "Physicians must be deeply knowledgeable and effective advocates for upgrading care in order to treat drug addicts successfully." We feel that there must be many questions in the minds of physicians around the state concerning the scope of the problem, methods of treatment, legal responsibilities, and direction in counseling. The committee has recommended that one day seminars be conducted throughout the state specifically for physicians. This will be implemented as soon as funds and plans can be arranged. In the near future the presidents of the county medical societies will be polled to determine local interest and needs. It is hoped that this program can be started this spring or summer at the latest.

Changes in Laws

We have taken under advisement and have made some recommendations for changes in the laws of Florida related to the drug problem. These laws are much in need of updating to conform more logically with the Comprehensive Drug Abuse Prevention and Control Act of 1970, which was signed by the president in the latter part of 1970. It has been recommended that our committee confer with the Committee on Drug Abuse of the Florida Bar, which will be working on revisions in our drug laws. It was felt, however, that this committee should make a recommendation relative to the laws on possession of marijuana since this will be an area to be explored by this session of the legislature. After much exploration and discussion, the committee has recommended that the penalty for the first possession of five grams of marijuana or less without intent to sell be changed from a felony to a misdemeanor. This in no way should be taken to mean that the committee does not recognize the dangerous nature of this drug but when everything is considered this would appear to be the only logical and realistic approach to this issue. This is a matter of great controversy and was not treated lightly by the committee. We have also gone on record as supporting legislation to repeal Section 398.09 of the Florida Statutes relative to the over-the-counter sale of certain classes of exempt narcotics. The abuse of codeine-containing cough syrups and paregoric make this change in the statutes necessary.

Metropolitan Dade County presently has an ordinance requiring disposable syringes and needles to be dispensed on prescription only. There has been much discussion within the committee as to whether or not statewide legislation of this nature is needed. As of this time, no definitive recommendation has been made.

Other Programs

Efforts are presently under way to prepare a Physicians Desk Reference on Drugs to be distributed to the doctors in the state. This will be modeled after a similar publication of the Department of Health for the State of New York. This will need updating to conform to the Florida laws and in other areas but should prove of great benefit to all physicians in Florida.

The chairman has traveled to Sacramento, California to explore the California Triplicate Narcotic Prescription Plan. This is a program which has been extremely effective in curtailing the traffic in Class A narcotics by identifying the forger, the user who jumps from physician to physician obtaining narcotics, as well as keeping some control over the indiscriminate prescribing of these drugs. This program has been highly successful in California and in all states where it has been adopted. The implementation of this program has been recommended by the committee and details are being investigated.

The members of this committee are extremely dedicated men and women who have given freely of their time and efforts in an attempt to seek some reasonable solutions to the many and complex problems of this blight which is affecting the young people of our state. We offer our services to all individuals and groups who feel that we can assist them in any problem area relative to this matter and earnestly hope that they will feel free to call upon us. Though sponsored by the Florida Medical Association, we are a group of varied professions with varying opinions, spheres of interest and degrees of influence, but with one common concern.

We of the medical profession must be prepared to meet the challenge facing us all in our own communities. Experience has shown that where physicians show concern and interest—youth listens. We must be knowledgeable of the problem, understanding of the needs, and above all ready and willing to become involved in community efforts to face this crisis which has even reached into some of our own homes. We have never failed to respond to need—we will not this time.

▶ Dr. Johnson, 1330 Miccosukee Road, Tallahassee 32303.

"The Starting Place"

David J. Lehman Jr., M.D.

Drug abuse today is everybody's problem. It appears in every segment of our society and has widely diversified causes. Physicians, particularly pediatricians, general practitioners, internists and psychiatrists are seeing many young drug users in their offices. Some physicians have had drug problems within their own homes. We have been receiving an increasing number of calls from doctors asking for treatment recommendations for overdose cases and how to handle an overanxious parent, whether or not they are permitted by law to prescribe certain narcotic drugs such as methadone on an outpatient basis, whether they are legally allowed to treat minors, and often to express their concern as to possible adverse effects the presence of hippie-type drug users may have on their office practices. The frequency and complexity of these calls have pointed up the urgent need for drug educational seminars for physicians as part of regular hospital and county medical society programs.

The philosophies and methods of combatting drug abuse change with individuals and circumstances. In 1966 I became greatly alarmed by the frightening newspaper headlines regarding the new social menace of teenage drug abuse. At that time no one seemed anxious to get involved in seeking possible solutions until my colleagues in the Broward County Medical Association supported my request to form a "Teenage and Parental Alert Committee" to warn parents and their children of the dangers of such dependency-producing drugs as glue (and other deliriant drugs), amphetamines and barbiturates, marijuana, LSD, cocaine, and narcotic drugs. I appeared before the Broward County Board of Public Instruction early in 1967 and within three months a program was introduced into the school system, grades nine through 12, with two full-time teachers and also volunteer physicians from our medical association. It is now mandatory by law to teach the didactic aspects of drug abuse in all Florida schools from kindergarten through high school.

In the following two years it became more and more obvious to me that new avenues of approach were necessary to help educate parents in order to improve communication within the home and to help relieve the anxieties and tensions present in all segments of the Broward community. For these reasons and with the help of many devoted citizens throughout Broward County, "The Starting Place" was opened on April 20, 1970 as the first community project of the Dangerous Substances Guidance Center, Inc. of Broward County (nonprofit). This is an information, education and guidance counseling center for parents and/or their children involved in someway in today's drug scene. No one is charged for services. We have a 24-hour answering service (305-925-3333/4).

At present our main efforts are directed toward prevention and identification of drug abuse, and at understanding and accepting the young people and their parents by suggesting alternatives to drug use, helping the abuser to reinterpret the experience brought about by drugs, making drug taking a less desirable form of behavior, providing information about desirable health practices which can be applied over a lifetime, and support to the family as necessary.

The types of services we provide can best be illustrated by these examples:

The Distraught Parent

A marijuana cigarette, pills, syringe, personal letter or other incriminating evidence is found in the child's room. The parent usually overreacts and may even have called the police before calling us. Preliminary advice is given over the phone, the parent is invited to come to the Center where one of our trained volunteers, our Executive Director, Stanley W. Keiserman, Ph.D. (social psychology) or our Clinical Director, Arthur T. Stillman, M.D., gives whatever help is necessary. The family situation is discussed, causes for the drug usage are gone over. An attempt is made to involve the child at a later visit. Our results have been uniformly good because of the quiet, reserved, professional nonhumiliating atmosphere at "The Starting Place"—freedom from fear of publicity or arrest.

Dr. Lehman is president of the Dangerous Substances Guidance Center, Inc. of Broward County and a member of the FMA Ad Hoc Committee on Drug Abuse.

The Pre-Addict

The young boy and/or girl enters our reception room through the rear entrance; motivation to seek help is already present. Giving full name is optional. The drug problem is discussed with one of our trained counselors, further appointments are arranged as indicated. An effort is made to involve the parents at a future visit. Our drug counselors never tell a youthful user not to use drugs, they inquire into possible causes and attempt to remedy them. If severe psychological problems are uncovered, referral to an appropriate agency is made.

The Non-Drug User

These boys and girls want to learn how to say no if offered drugs by one of their peers and not lose face. At times this information is given in a group situation. We are now in the process of organizing an active Youth Advisory Board.

Narcotic Addicts

Over 100 hardcore narcotic addicts have come to "The Starting Place" since last April. Each one received a preliminary interview and then was referred to a local methadone and/or psychiatric clinic for appropriate treatment. No one is ever turned away without first being given all possible assistance.

Our counselor training programs are under the supervision of Dr. Stillman and Dr. Keiserman. They train lay individuals from the community, juvenile court counselors, parole personnel, school guidance counselors, and other social and psychiatric workers requesting this training. The course is given two hours one night a week for ten weeks. Many join the Center's permanent counseling group. Some become quite effective as speakers.

We have an extremely active Speaker's Bureau that receives one to two requests each day for qualified speakers to present drug programs to religious, civic, social and youth groups. We have special programs for elementary school groups such as Cub Scouts and Brownies. We give programs in Sunday Schools for all grades. Requests from Dade and Palm Beach Counties are referred to the local medical society.

With the recent formation of the Florida Medical Association's Ad Hoc Drug Abuse Committee, a major step has been taken to combat the drug problem. Robert P. Johnson, M.D., of Tallahassee is the Chairman and I am proud to be a member of this important committee. Representatives of all state agencies concerned with the drug problem are part of this committee including Louis Morelli of the State Board of Education. All phases of the drug problem are under consideration at this time.

In conclusion, there is little doubt that prevention through education and counseling will prove to be more effective than the "so-called cures" for drug dependent individuals. All of us at "The Starting Place" offer our services to any and all groups seeking our help. It is our fervent hope that many "Starting Places" will open soon in all the large urban areas throughout Florida to help curb the use of dangerous drugs and narcotics by our young people.

▶ Dr. Lehman, 2740 Hollywood Boulevard, Hollywood 33020.

Of Vital Importance!

It is of vital importance that you take the time to complete and return the questionnaire which appears in this issue of the *Journal* on page 32a.

Your prompt participation in this readership survey will serve as a guide to help us produce an even better *Journal* in the years ahead.

Let us hear from you!

Drug Education Training Program

Louis V. Morelli

A multidiscipline approach is being emphasized as Florida embarks upon a program of prevention of drug abuse which the 1970 legislature recognized as a serious public health problem in passing two major bills. Designed to meet the immediate need is the Drug Education Training Program employing the Triple T Concept—Teams Training Teams—for inservice training of school personnel. The Task Force on Health Education, appointed by Commissioner of Education, Floyd T. Christian, identified this need as critical. His opinion was reaffirmed by the State Planning Team sent to Chicago in conjunction with the State Training Grant. Dr. Wesley S. Nock of Coral Gables, chairman of the Florida Medical Association's School Health Medical Advisory Committee, is a member of the team.

State Board Regulations

There are seven major points of concern for the implementation of the Emergency State Board of Education regulations.

1. Before the end of the school year 1970-71, all children and youth in kindergarten and grades 1-12 shall have been provided instruction in drug abuse education. All juniors and seniors shall be required to complete units of instruction which will include, but not be limited to, basic concepts and instructional objectives prescribed in state courses of study and accreditation standards.

2. Beginning with the 1970-71 year, the division of elementary and secondary education shall conduct a series of regional clinics on drug abuse for professionals, para-professionals and personnel of nonschool related agencies. Each school district shall enroll personnel qualified to instruct other district personnel in at least one of these clinics.

3. Beginning with the school year 1971-72, drug abuse education shall become a regular and required unit of instruction in junior high school and at the senior high school levels. Such units will include instruction prescribed in state courses of study.

4. Beginning with the school year 1971-72, school districts shall schedule, as a component of the staff development plan, training sessions designed to provide teachers with current information and knowledge of the harmful effects of drugs, narcotics, alcohol and tobacco and other immediate health related concerns.

5. Beginning with the school year 1970-71, all teacher preparation institutions and junior colleges shall require drug, narcotic, alcohol and tobacco education as a major component of health education courses.

6. Beginning with the school year 1971-72, all state supported teacher preparation institutions shall include instruction relating to drug abuse, alcohol and tobacco as a major component in health education courses required for certification of elementary teachers and for the preparation of drug and health education specialists.

7. Beginning with the school year 1971-72, the Board of Regents, through the state university system, shall expand programs designed to develop specialists in health education and drug education with degree programs located in at least two regions of the state—Central Florida and North Florida. Beginning with the school year 1972-73, degree programs shall be located in south Florida.

Program Designing

Among the most difficult problems is designing an effective program for teaching drug abuse education. The Department of Education is endeavoring to formulate a program which will enable the teacher to understand the problem and to communicate with youngsters. The success or failure of the program ultimately selected by each county will depend upon the teachers' abilities to create an atmosphere where a free exchange of ideas is possible and student frustration is greatly reduced.

The Drug Education Training Program provides the opportunity to identify and coordinate the efforts being made and then to share the information with those counties seeking assistance. Many counties already have taken positive steps. For example, the Broward County Medical Association helped to initiate a program at the ninth grade level which is now in its fourth year. Each county has been requested to report the methods and techniques used or planned this school year in the areas of inservice training of educational personnel and program implementation. These reports of successes and failures will be shared with all counties so that new ideas can be incor-

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porated where applicable or feasible. There should be no competition in the area of drug abuse education.

Community Efforts

Since drug abuse is also a community problem, members of the community and students should be part of every team. Efforts are being made to bring together the expertise from professionally and occupationally qualified individuals that can make a significant contribution.

To gain support from people other than professional educators, a resource advisory committee has been formed which has been helpful in identifying consultants and materials. The members include Robert P. Johnson, M.D., Florida Medical Association; Mrs. Bennie Spanjers, Women's Auxiliary to Florida Medical Association; Willis D. Booth, Department of Law Enforcement; Frank D. Nelson, Department of Health and Rehabilitative Services; Reverend David C. Butts, Spectrum Programs, Inc.; Marshall Cassedy, Florida Bar; James Powers, Florida Pharmaceutical Association; Reverend Jack Eppes, United Christian Action; Thomas Hurney, Bureau of Narcotics and Dangerous Drugs; Mrs. Coleen Bevis, Florida Congress of Parents and Teachers; Mrs. Oneida Carpenter, Educational TV and Radio; Dr. Jerry Meketon, Federal Correctional Institution; David C. Di Martino, Student, Miami Norland Senior High; Dr. Burton Podnos, Brevard Mental Health Center, and Frederick Terrell, Student, Twin Lakes High School, West Palm Beach.

During the summer of 1970, a Florida leadership team representing ten different school systems attended one of the four National Training Centers established by the U.S. Office of Education. The University of Wisconsin was host for 13 states and the Virgin Islands for an extensive four weeks course. Attendance was made possible by the grant to the Department of Education.

Members of the team included William Coulter, Coordinator of Inservice Education, Volusia County Schools; Mrs. Betty Cox, Coordinator of Science Education, Monroe County Schools; David C. Di Martino, Student, Norland Senior High, Miami; Okie Fletcher, Supervisor, Health Education, Hillsborough County Schools; Stanley Kennedy, Teacher-Specialist in Health, Broward County Schools; Mrs. Shirley Meade, Health Education Consultant, Lee County Schools; Dean Roberts, Health Education Teacher, Duval County Schools; Mrs. Allie Strickland, Social Studies Teacher, Bay County Schools; James Stasko, Program Coordinator, WSRE-TV, Pensacola Junior College, and Louis Morelli, Department of Education.

State Conference

The first of a series of programs putting the Triple T Concept in operation was conducted at Florida A & M University to train regional teams, composed of the county coordinator for drug education as well as five resource people in the region. A student is on each team.

The purpose of this state conference was to assemble teams from the seven regions so that structures, guidelines and skills for the training of educational personnel could be effectively accomplished. Of the 67 counties, 60 were represented. The regional teams had the opportunity to plan sessions to train county teams.

Regional Conferences

The state universities have been designated as the regional center in seven geographic areas. These regions coincide with the credit course service areas served by each of the universities. They are not to be confused with the 11 regions designed for the drug abuse program by the Department of Health and Rehabilitative Services.

Each university center has assigned a regional coordinator who serves as a resource person and as liaison of the Department of Education in addition to his duties at the university. The state coordinator is the only individual employed for the Drug Education Training Program.

The Regional center and coordinators are:

Region I—University of West Florida, Pensacola—Dr. Bob M. Thornton

Region II—Florida State University, Tallahassee—Dr. Marion C. Riser

Region III—University of Florida, Gainesville—Dr. Bryan C. Smith

Region IV—Florida Technological University, Orlando—Dr. Frank D. Rohter

Region V—University of South Florida, Tampa—Jack Stovall

Region VI—Florida Atlantic University, Boca Raton—Mrs. Joella Good

Region VII—Florida International University, Miami—Dr. E. A. Giordano

*Florida A & M University, Tallahassee—Mrs. Edwina Martin

All 67 counties participated in regional conferences and were responsible for enrolling a team consisting of educators, community resources and student representation.

*Since two state universities are located in Tallahassee, Florida A & M cooperates with Florida State in Region II.

County Conferences

The Department of Education has attempted to provide leadership for development of educational programs; however, each county school system should custom-build its own program depending upon needs, expertise and existing curricula. One design has not proved to be the ultimate answer.

All county school systems are currently engaged in planning and/or the implementation of drug abuse programs.

Each state supported junior college has appointed a coordinator for drug education and it is hoped that every elementary, junior and senior high school will do the same so that lines of communication can be effective.

Findings

At a recent meeting regional coordinators and representatives of resource agencies compiled a list of "findings" as a result of their involvement in the drug scene.

1. The role of educators should be geared toward helping students develop their own values and to give them background needed to make decisions concerning drug usage. The method endorsed to achieve this is the conceptual approach.

2. The teacher should serve as a resource guide only (producer of information) so that decision-making process can be undertaken by students.

3. Subject matter and process area should be established that will be committed to the premise that people can and must learn to be more effective in interpersonal relationships.

4. Lectures, films and canned programs should be only tools for conducting programs and are of minimal benefit. Students' feelings need to be explored in terms of responsible decision making and why do students feel drugs are necessary to cope with reality.

5. There should be a de-emphasis of pharmacological aspects in programs and a move toward the sociocultural factors contributing to drug abuse. Although the chemical aspects can play a part, it should not be the entire program. Behavioral aspects should be exposed—both individual and sociocultural.

6. There should be a gradual move from using terms of "drugs" and "drug abuse" and lean toward mood modifiers.

7. Generalizations cannot be made about drugs or the abuse of drugs.

8. Drugs, like any other substance in our material universe, are not harmful in themselves; however, the individual human use of the substance makes them detrimental or beneficial.

9. Guidelines are needed for stimulating better cooperation between school systems and law enforcement officials at the local level. Consideration should be given to the right for privileged communication for school counselors and perhaps teachers as well.

There is a need for reorientation on inservice training law enforcement agencies.

10. Teachers should not conduct drug education sessions without inservice training.

11. A primary goal of inservice training should be to provide teachers skills or background information which will enable them to deal comfortably and rationally with the subject of drug abuse. This includes familiarization with drugs as well as the complex human behavior that is involved. It should be in terms of "open relationship" instead of just giving information.

12. The teacher, once comfortable with the subject, should not act as an authority or expert on drugs, but he should attempt to bring some understanding and to stimulate the students' thinking about the complex human behavior involved in drug abuse. Raise questions, such as: Why take drugs? Why do different people become addicted?

13. Drug programs should have provisions for small group interaction.

14. The whole educational system should be encouraged to use methods stressing the ills of society causing drug abuse.

Conclusion

Although all 50 states are implementing programs of drug abuse education, no magic answer to the dilemma of drug use has been found. When evidence of a real breakthrough is discovered, it will be immediately shared throughout the country. The uniting of agencies and coordination of efforts appear to be a step in the right direction. The Ad Hoc Committee on Drug Abuse established by the Florida Medical Association is a great example of the multidiscipline approach toward understanding the complexities involved in human behavior. It is frequently thought that the most significant contributions will come from youth themselves. Their efforts must be encouraged.

▶Mr. Morelli, State of Florida Department of Education, Tallahassee 32304.

Hepatitis Epidemic in the Young Drug-Oriented Society of Palm Beach County

JOHN F. MCGARRY, M.D. AND C. L. BRUMBACK, M.D.

In Palm Beach County 64 cases of hepatitis were reported from July 20 to August 20, 1970, an eight-fold increase over a similar period in previous years. For one week late in July the Palm Beach County Health Department noted five new cases in persons ages 14 to 19. Investigation revealed that they were members of a group who frequented local parks, beaches and hippie hangouts, consorting for fun, games, drinking and at times drug usage. Four of the five young people had attended the Atlanta Rock Festival the weekend of July 4 and had been in direct contact with a 17-year-old girl who was known to be ill with hepatitis.

Intimate contact at the festival, such as sharing food, drinks, sleeping areas and drugs, was considered a prime factor in spread of the hepatitis virus. Records revealed that 50 patients among the 64 cases either had attended the festival or been in close contact with those who had attended.

Previous to the present outbreak there had been an increase in the number of cases of serum hepatitis in the county associated with parenteral drug usage. Three or four weeks following the festival, however, the abrupt increase in hepatitis among young people strongly indicated the presence of the infectious type. As the cases increased, an epidemic situation was declared, and those who had participated in the Rock Festival or anyone who had associated with a person with hepatitis was requested to report to the health department or their family physician.

Epidemiological investigation continued. All local food establishments were surveyed and owners cautioned about hiring young hippie-type persons. It became obvious that many contacts of persons with hepatitis were working as food handlers. Gamma globulin was administered to those who could be identified.

A case relating to the epidemic involved a 17-year-old boy hospitalized on June 1, 1970 following an overdose of heroin. He was a member of the hippie group. Jaundice developed while he was in the hospital but it was thought to be the serum type because of his taking drugs intravenously. Laboratory tests revealed the serum to be positive for the Australian antigen; however, approximately four weeks after caring for the patient, hepatitis developed in five hospital employees including two registered nurses.

The mode of spread among the young people complicated the epidemiological problem. Social and moral factors came into play in a manner unlike those encountered in usual hepatitis outbreaks. The health department was limited to use of gamma globulin in all susceptible persons along with preventive education in use of drugs and drug paraphernalias and general education in personal hygiene. Before cases began to decline, more than 500 doses of gamma globulin had been administered. The hepatitis epidemic among the young people brought into focus the magnitude of the drug problem in Palm Beach County. The most frightening aspect was the extensive use of heroin. One year previously its use had been practically nil but now it appeared commonplace. The taking of dangerous drugs including heroin by children in the age group 13 to 16 had increased and many of them had attended the Atlanta Rock Festival unaccompanied by parents or adults. Some lived alone in apartments away from parents, a sad commentary on family life in America. Throughout our investigation it was apparent that children too often were poorly supervised and that discipline was nonexistent in many families. Peer group pressure among the young people was so great that those from loving and concerned families were susceptible to the socially communicable disease called "drug abuse."

Epidemiologically, physicians and health departments are virtually powerless to remove the causes unless they press for and participate in some type action in the areas of prevention, law enforcement, treatment and rehabilitation.

The increasing use of drugs by the intravenous route will continue to pose a serious threat in the form of serum hepatitis. The drug-oriented group will continue to be a prime target for communicable diseases because of their social and health practices.

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Heroin Addiction
Some of its Complications

Juan Aleman, M.D.

The rise of heroin addiction in our society is evident not only among the lower socioeconomic segments of the population but also in the middle and higher income classes. The real number of heroin addicts ("Junkies") is, of course, a matter of speculation but the great majority live in densely populated areas such as New York City, Chicago and Los Angeles. The teenage and the young adult groups are the most frequently involved. In New York City, where experts estimate that half the heroin users in the U.S.A. live, 900 deaths from heroin use were recorded in 1969; 224 were teenagers.[1]

Several cases with some of the complications of heroin addiction have been seen during the past year in our community hospital. A few examples including overdose, pulmonary edema, septicemia with osteomyelitis and serum hepatitis are reported to emphasize the diversity of disease that may be associated with addiction.

Case Reports

Case 1.—A 20-year-old Negro woman was brought to the emergency room by some friends who left her without explanation. She did not respond to pain and had very shallow respiratory excursions of eight per minute. The blood pressure was 142/50 mm. Hg., pulse 120, and the temperature was normal. Pupils were pinpoint and fixed. Extremities were flaccid; all deep tendon reflexes were decreased, and careful examination showed recent needle marks on the dorsum of both hands and in the left anticubital fossa.

Soon after arrival in the emergency room respiratory arrest supervened. An endotracheal tube was inserted; respiration was assisted with an Ambu bag, and she was admitted directly to the Medical Intensive Care Unit.

Levallorphan 1 mg. intravenously was given with excellent response in less than two minutes. The pupils became normal and reactive to light, and she forcefully removed the endotracheal tube.

The patient admitted taking heroin shots for the past year and that she had taken one shot of unknown dosage a few hours before admission. She then refused to answer any further questions. One hour later she was again somewhat drowsy and 0.5 mg. of levallorphan intravenously was given, again, with rapid clearing of her drowsiness. No further medication was necessary and 26 hours after admission, the patient was seen for the last time before leaving the hospital without medical consent.

Case 2.—A 24-year-old Negro male was brought to the emergency room by his mother who stated that he might have been taking dope; that he was in good health the morning of admission. The patient was in a stuporous condition and unable to give any information. Past records indicated that a diagnosis of rheumatic fever was made at age 12. There was a grade I systolic murmur at the apex present at that time which was the only suggestion of cardiac involvement. He was asymptomatic and had a negative EKG and chest x-ray at age 15 when he was last seen in the clinic.

Physical examination in the emergency room showed him to be stuporous, sweating cyanotic, and blood-tinged, frothy secretions oozing from his mouth. The respiratory rate was 10, blood pressure 80/60 mm. Hg., pulse rate 120, and the temperature was 97 F. The pupils were constricted and nonreactive. There was no neck vein engorgement. Inspiratory crepitant rales were present over the lung bases. The heart sounds were difficult to evaluate because of respiratory noise, but no murmur, gallop or rub was heard. There was a needle track scar in the left antecubital area. Reflexes were normal. A chest x-ray revealed signs of marked pulmonary congestion with no cardiomegaly (Fig. 1). The electrocardiogram showed right atrial enlargement and tall peaked P waves with an axis of +90. The rhythm was regular.



Fig 1.—Chest x-ray (Case 2) taken on admission. Marked pulmonary edema was present without cardiomegaly.

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A diagnosis of heroin overdose with pulmonary edema was made. Emergency treatment included nalorphine 20 mg. intravenously, furosemide 40 mg., Cedilanid 0.8 mg. intravenously and aminophylline 500 mg. intravenously. A Metaraminol drip was used to keep the systolic blood pressure above 95 mm. of mercury. Ten hours later, the temperature was 102 F but it returned to normal within eight to ten hours. Eighteen hours after admission, he was alert and afebrile with a normal blood pressure without Metaraminol.

Upon questioning the patient admitted taking a heroin injection six hours before admission. He felt very drowsy afterwards, was taken home by some friends and there he told his mother about the injection.

During hospitalization he was kept on digoxin 0.25 mg. and trichlormethiazide 4 mg. daily with potassium supplementation. The pulmonary congestion cleared in three days without further cardiac abnormalities (Fig. 2). Careful examination before discharge revealed no evidence of rheumatic heart disease. Blood and sputum cultures were negative and routine blood work proved normal. He was discharged asymptomatic after eight days.

Case 3.—A 47-year-old Negro male was in good health until five days before admission when he developed chills, fever, hiccups and rhinorrhea. He described the frequent use of heroin and paregoric since the age of 20. His favorite sites for injection were the jugular and femoral veins. There had been two previous admissions in Jacksonville and earlier admissions in New York City for narcotics addiction. He had also served two years in a federal prison for narcotics violation.

He was alert and oriented but uncooperative and restless. Vital signs were normal excepting a temperature of 102 F. Moist rales were heard over both lung fields. There were injection scars over both inguinal regions.

The initial hospital course was characterized by a hectic febrile course but after the fourth day the temperature remained normal. Blood cultures taken on admission grew coagulase positive staphylococci. A five day course of methicillin was given without other antibiotics until the 21st hospital day when he began to complain of pain in the cervical spine. Blood cultures were again positive for staphylococci and x-rays showed an osteolytic lesion in the sixth cervical vertebra (Fig. 3). Radiologic survey of other bones was normal.

It was presumed that the cervical lesion was a focus of osteomyelitis, and treatment was started with ampicillin and lincomycin. Because the lytic lesion appeared to progress, on the 42nd hospital day an open surgical biopsy was performed. Culture yielded *Staphylococcus epidermidis*.

Histologic examination was consistent with acute and chronic osteomyelitis. He was much improved by the 54th hospital day and was discharged to be treated on an ambulatory basis with lincomycin.

He has not regularly returned to the Ambulatory Clinic for follow-up. Lincomycin was discontinued after four more months, and the osteomyelitis is apparently cured. He continues to take morphine despite attempts to break his addiction.

Case 4.—A 19-year-old Negro male had no previous serious illness and admitted being a heroin addict from December 1968 until June 1969. He came to the emergency room with a history of intermittent diarrhea for five days. He had one episode of vomiting four days previously, and his private physician had noted jaundice three days previously. He had lost his taste for cigarettes and denied fever, chills, anorexia and abdominal discomfort. There had been no pruritis.

He used two to three injections of heroin per week from December 1968 through June 1969 while he resided in New York City. These were given at parties of several friends where they used one glass syringe and a plastic needle, which they attempted to sterilize in alcohol between injections. The last heroin injection was three months before this admission. There was no other epidemiologic history of significance.

Physical examination showed icteric sclerae, and there were needle scars in the left antecubital area. The liver was not enlarged and no other abnormalities were present.



Fig. 2.—Chest x-ray (Case 2) before discharge. No abnormalities are demonstrated.



Fig. 3.—Osteolytic lesion in the sixth cervical vertebra. Osteomyelitis was found at surgery (Case 3).

Blood chemistries included: SGOT 550, SGPT 410, LDH 300, alkaline phosphatase 21.9, cholesterol 152, bilirubin direct 2.3, total 5.0.

The hospital course was uneventful and he was discharged after nine days to continue convalescence at home.

Discussion

Diacepylmorphine or heroin is a crystalline white powder soluble in water derived from morphine which is an alkaloid of the poppy plant, Papaver somniferum. Heroin is metabolized in the liver and excreted in the urine. It is three times more potent than morphine. It is a narcotic, produces sleep as well as analgesia, and is an addicting drug, produces physical and sometimes psychological dependence. Its main actions are analgesia, drowsiness, euphoria, increase in vagal tone, suppression of the feeling of hunger, antidiarrheic and miosis. Its main toxic effect is respiratory repression.

Addicts may take heroin by sniffing (snorting) it, oral ingestion, subcutaneous injection (popping), or IV injection (mainlining, spiking). The aim of the addict is to get "high," but, in fact, he is sent into a state of dreamy indifference or dullness. The "kick" he gets has been described by some addicts as a warm flushing of the skin and genital sensations similar in intensity and quality to the sexual orgasm.

Withdrawal symptoms which the heroin addict must endure when he lacks the drug are described as terrifying and include mydriasis, anorexia, piloerection, restlessness, tremor, insomnia, sneezing, weakness, lacrimation, depression, nausea, vomiting, diarrhea, hypertension, tachycardia and sweating. The spasmodic movements of muscle groups in the lower extremities imitating kicking movement at the end of a seven to ten day withdrawal period experienced by the addict have been mentioned as the basis for the expression "kicking the habit."[2]

The heroin addict's psychiatric disability has not been established, and it has been noted that his difficulties are inadequately classified by the existing nomenclature.[3] An emergency room physician frequently can expect to encounter the numerous complications of heroin addiction; a partial list might include: coma and death from overdose, abscesses, cellulitis, endocarditis, septicemia, osteomyelitis, hepatitis, pneumonia, tetanus, thrombophlebitis, pulmonary edema, transverse myelitis, and paroxysmal atrial fibrillation.[4-8]

Death from overdose is by far the most frequently observed of the complications and the one that requires early recognition and treatment. In 1967, according to the office of the Chief Medical Examiner of New York City, 655 persons in that city died of heroin overdose establishing this as a leading cause of death in the 15 to 35 years old age group.[6] Very frequently the history is unavailable, but the physical examination is highly rewarding. The facts outlined in the text table are sufficient to justify prompt treatment with nalorphine.

Diagnosis of Heroin Overdose

Young person
Stupor or coma
Depressed respiration
Pinpoint pupils
Needle scars

The importance of the early recognition and prompt correct treatment of heroin overdose cannot be overemphasized. It should be assumed from the beginning that respiratory assistance will be needed and an endotracheal tube should be inserted as soon as the diagnosis is suspected. The usual steps in therapy are:

Emergency Treatment of Heroin Overdose

Insert endotracheal tube and assist respiration
Start intravenous infusion of dextrose 5%
Nalorphine 5 to 10 mg. IV every 15 minutes
(Do not exceed 40 mg. total dose)
Rapidly acting digitalis preparation and intermittent positive pressure if pulmonary edema is present
Support blood pressure, if necessary, with Metaraminol
Admit to Intensive Care Unit and be prepared to retreat with nalorphine

Summary

The rise in heroin addiction in all segments of our population, but mainly in the teen and young adult, is discussed. Four cases of commonly encountered complications of heroin use are presented to emphasize the variety of diseases which may result. These include septicemia, hepatitis, pulmonary edema and central nervous system depression. The diagnosis and emergency treatment of heroin overdose is outlined.

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A Closer Look

Frank D. Nelson

In 1970, the Florida Statutes gave the Secretary of the Department of Health and Rehabilitative Services the responsibility for developing a comprehensive program of prevention, rehabilitation, education and research of drug abuse and dependence and for coordinating and cooperating with the many federal, state, local and private programs.

The program operates under the direct supervision of the Secretary. The staff is composed of six professional persons with special competence in the drug abuse field. They work directly with community agencies, lay and professional groups and appropriate individuals throughout the state in a unified effort to clearly identify, define and deal with the problems created by the abuse of drugs. They assist treatment programs to evaluate and improve services so that these programs can be maximally effective.

The Drug Abuse Program is essentially a twofold effort aimed not only at treatment of the addicted but also at prevention of further addiction. At this point we know much more about treatment than we do about prevention and it is our hope that a major research emphasis will be in the latter area. We have learned, through the experiences of other programs in other states, that some of the therapeutic methods effective in mental health, psychiatry and general medicine are not effective with the drug dependent persons. Methods have evolved and been tested in Florida as well as other states which, although claiming no "cure," have restored drug dependent persons to a more satisfactory life without the agonies of the illegal trafficking and use of drugs. This is a comprehensive approach which combines elements of the medical, mental health and sociological model.

Hard-core addicts may require detoxification in a controlled setting, then residence at a treatment center where a well structured living routine is coupled with group therapy techniques based upon a combination of confrontation and support. A balanced staff of professional clinicians and trained, ex-addict para-professionals is most effective in achieving the goal of rehabilitation.

For persons less involved with drugs or with some strengths in the community or the home, residential treatment may not be necessary. Therapy may be conducted on an outpatient basis.

The treatment of drug dependent persons has little prospect of meeting the problem. If we expand and develop treatment centers manyfold, services still would not be provided to all those needing them unless we halt the increasing number of addicts. We must provide whatever help is possible to those already drug dependent and, at the same time, adequately support a multifaceted prevention program. It is toward this end that a substantial amount of money and research must be directed. From the background of our present knowledge, the major emphasis must be in helping people develop a lifestyle that is satisfying without drugs. As long as there is a compelling desire to escape from problems that appear to have no practical solutions, individuals will find substances to help them escape. If we could, as some have suggested, eliminate heroin but fail to eliminate the needs for it, we would still have a drug problem because users would substitute something else.

We do not have the answers, but we are seeking solutions with the tools of research. The use of drugs by an individual is a symptom of serious dissatisfaction with life. The wide scale use of drugs by a society also indicates that something is wrong. A closer look may reveal what it is. We need to educate the general public to a better understanding of the problem, and equip them to deal intelligently with it. We need to reduce the hysteria with which the use of drugs is viewed and which criminalizes young people who have grown up in a culture in which the media of advertising has taught them that they need never be uncomfortable, depressed or joyless. We need to reorient children toward health and the value of productive living. We must reduce the need to drop out of life by helping young people to find worthwhile, important and productive things to do. We have not exhausted the list of personal, community, national and international projects and problems that are desperate for solution. To help bring together the people and the projects is a challenge to your profession and mine.

Mr. Nelson is Director of the Drug Abuse Program of the Florida Department of Health and Rehabilitative Services.

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From My Side of the Counter

Robert B. Weber, R.Ph.

Doctor, this morning three of your patients came into my store. Patient No. 1 (age 62) came in to have his Isuprel prescription refilled, and as usual he stopped three times to catch his breath while walking from the front door to the prescription counter. Also, as usual, he smoked a cigarette while waiting for his prescription. Patient No. 2 (age 67) went into the lounge to have a cup of coffee while waiting for his prescription. I happened to notice him pouring a clear liquid into his coffee from a bottle he had concealed in a brown paper bag. Patient No. 3 (age 20) brought in a prescription for 30 Desoxyn Gradumets; it had your signature, but we both know you did not write that prescription.

These three patients all have one thing in common: they are addicts. Patient No. 1, like many others, is addicted to nicotine. He is aware that he should not smoke because of his condition; you have told him this many times, but like so many others who have heart or respiratory conditions, he continues to smoke because, as he says, he "enjoys it" so much.

I believe the doctors as a group should be commended for taking the lead in cutting down the smoking habit; however, there are still many patients who can rationalize their smoking by the fact that their doctors continue to smoke.

Patient No. 2 is addicted to a different type of drug. In fact, he is addicted to the most abused drug in the world today—alcohol. When we refer to drug abuse, we usually think of drugs such as marihuana, LSD, heroin, amphetamines; however, we must include nicotine and alcohol. The little contact I have with the alcoholic is limited to filling prescriptions for Antabuse and other medications used in rehabilitation; however, we are all aware that alcoholism is probably the greatest social problem in our country today. Being retired gives patient No. 2 much more time to drink.

There are many older people in our community who start drinking early in the day because they have nothing better to do. You know better than I the number of housewives who are confirmed alcoholics; however, I do encounter many of the junior executives who have two or three martinis at lunchtime. We should not look at an alcoholic as a drunk but rather as a person who is sick and needs treatment; a person who needs to be detoxified just as much as a person who is going through heroin withdrawal. I am not against drinking; however, I've often thought it would be only fair for some organization to undertake an advertising campaign to combat the advertisements in our magazines and newspapers that paint a glowing picture of the benefits of alcohol and make it a status symbol. Someone should tell it like it is—the failures, Bowery bums, broken families—all the things that you, as a doctor, have seen over the years.

The area of greatest concern today, especially in our young people, is in illegal drug abuse; drug usage other than nicotine or alcohol. My example of patient No. 3 forging a prescription for Desoxyn Gradumets would have been an exaggerated illustration a few years ago; however, today it is quite common. As a matter of fact, at this very moment I have a dozen notes posted in my prescription department warning of forged prescriptions for Desoxyn Gradumets. The situation has become so serious that I assume the Desoxyn prescription to be false unless I can prove otherwise. These young people have become very bold and the forged prescription is an easy way of obtaining the closest thing to "speed." After stealing prescription blanks from your office or the hospital, the most knowledgeable individual will forge the prescription and perhaps another person, whose shorter hair style will be less suspect, brings it to the pharmacy to be filled. If they don't use the medication themselves, they sell it for ten times the original cost. Desoxyn is usually the drug of choice for the teenagers and the so-called "hippies" in their early twenties while the hardened addict often forges prescriptions for Dilaudid as a substitute for heroin. Many of these people are quite accomplished prescription writers and it is very difficult to distinguish their forgeries.

Another legal medical source of supply for the addict is exempt narcotic preparations. As you

Mr. Weber is a member of the FMA Ad Hoc Committee on Drug Abuse.

know, these are a class of preparations containing an exempt quantity of a narcotic that may be sold without a prescription. To purchase an exempt narcotic a person must be 21 years of age and must sign the exempt narcotic registry book certifying he has not purchased a like product within the past 48 hours. These products are quite inexpensive and include paregoric, terpin hydrate and codeine. Cheracol, Cosanyl, Robitussin A/C, etc. In terms of popularity among the addicts, Robitussin A/C and paregoric are top choices. In fact, Robitussin A/C has become so popular that one young lady in our town was selling marihuana to buy Robitussin A/C. The addict takes a 2 oz. bottle of Robitussin A/C, adds whiskey, beer, or wine and consumes the mixture. The combination of the antihistamine, codeine and alcohol puts him into orbit. For a long time, paregoric has been the choice of the old-time narcotic addict, who has had surgery or chronic diarrhea; however, the new generation uses paregoric differently. Generally, instead of drinking the whole bottle like the old-timer, he boils it down and injects it directly into the vein. Americans can always find a new and better way of doing things. It is time we eliminate "exempt narcotics" since the disadvantages now outweigh the advantages. Your ad hoc committee on drug abuse has gone on record in recommending the elimination of exempt narcotic preparations as a method of drying up a source of these abused drugs.

Unfortunately, another excellent source of supply for the addict is your office or my prescription department. Break-ins are becoming commonplace and it behooves us to make it more difficult for these people by means of burglar alarms and safes.

May I offer a few suggestions to help you from being used as a source of illegal drugs.

1. Stock as little narcotics as possible.
2. Keep narcotics locked at all times.
3. Guard your prescription blanks—don't leave them in examination rooms.
4. Do not print your registry number on prescription blanks.
5. Supply registry number to pharmacies so that pharmacists can request this number on a telephoned prescription.
6. Indicate refills, if any.
7. Personally telephone or write prescriptions for drug abuse items.
8. Personally telephone or write all prescriptions for your staff.

Reams of paper have been used in writing articles about drug abuse. It has become very vogue to talk of drug abuse, but the time for talking is over and we must take action. We can see that treatment is not the sole answer. The confirmed alcoholic can be rehabilitated into a useful citizen, but there are very few heroin addicts who have been rehabilitated. It is time for you to get out from behind your desk, and for me to get out from behind my counter, and find out what's going on in the outside world and what we can do to improve it. A few short years ago, heroin addicts lived in one of four large cities and it was not very probable that you treated a heroin addict. Today, it is quite probable that you are treating heroin addicts.

I have the privilege of serving on the Ad Hoc Drug Abuse Committee of your Florida Medical Association. This Committee, composed of many professions, discusses the drug problems in our state and makes recommendations to your Board of Governors. You and I must get involved in our local drug abuse committees to find out what the problem is in our own area, to find out what legislation is before the legislators, and to let them know our feelings. We need to present programs in the schools under the auspices of the local association, and to counsel individuals in regard to their personal problems. This is an area in which the doctor and the pharmacist should take an active part and work closely together.

Our generation will not solve the drug problem. The problem primarily belongs to the younger generation and the solution must come from them. We can help them—by giving them leadership, assistance and straight answers. The size of the problem is staggering and we may be overwhelmed by it; however, your patient load may be staggering if you look at your schedule by the month. By taking each patient, one at a time, it isn't so bad. Several years ago, my personal feelings prompted me to write a letter to the Chamber of Commerce Board concerning the use of a liquor bar at their luncheon meetings. The Board agreed that they should not sponsor a bar at 11:30 a.m. and discontinued the practice. I was thanked by business leaders in the community who felt as I did. This pointed out to me that one person can do something about any problem if he is concerned enough to get involved.

▶ Mr. Weber, 155 East New England Avenue, Winter Park 32789.

Epidemiologic Approach to Heroin Addiction in Dade County, Florida

John E. Davies, M.D., Walter F. Edmundson, M.D.,
Brian D. Blackbourne, M.D., Lynn P. Carmichael, M.D.,
David Engel and Thomas Moore

The use of heroin has become a national problem.[1] Its adverse effects are manifest in the number of deaths from overdosage, rising incidence of serum hepatitis from use of contaminated syringes and needles, and increasing number of persons jailed for behavior directly connected with drug abuse or drug seeking. The necessity for public clinics to help combat this problem is recognized and supported, but only too often these are located without knowledge of the magnitude and distribution of the problem in the respective community.

This paper presents summary prevalence data collected from special population groups. The purpose is twofold: First, to describe the demographic and socioeconomic characteristics of the heroin user in Dade County and, second, to examine the reliability of the selective study populations as indices of the qualitative and quantitative characteristics of the drug problem in a given community.

Methods and Materials

Mortality data were obtained from the Dade County Medical Examiner's office on deaths due to heroin overdosage during 23 months of a two-year period, January 1968-December 1969. Morbidity data are based upon serum hepatitis cases, prisoners in the Dade County jail, and case records of a drug detoxification (methadone) clinic.

The demographic characteristics of serum hepatitis patients were listed from reports to the Dade County Department of Public Health and socioeconomic status determined upon the basis of the median income of the census tract of the place of their residence.

Data obtained from 470 prisoners during a health and pollution survey of the Dade County jail revealed that 103 were heroin users. They volunteered information on use of the drug.

The last source of data was the drug detoxification (methadone) clinic at Jackson Memorial Hospital.

Results

The 41 deaths from heroin overdosage diagnosed by the Dade County Medical Examiner in the 23 month period January 1968—December 1969 are classified in Table 1 according to age, race and sex of victim. Ninety three percent were under age 40. Race distribution was the same as the Dade County population; that is, 85% were white and 15% Negro; 83% were males. The mortality rate was 1.8 per 100,000.

Morbidity data are based upon the recognized physical and social complications of heroin addiction, viz serum hepatitis, incarceration, and need for detoxification. The 165 serum hepatitis cases reported to the Dade County Department of Public Health in the period January 1969 to April 1970 are classified according to age, race and sex in Table 2. Eighty four percent were white and 62% males. No cases were reported in persons under 15 years of age; however, 48 cases involved persons over 40 and 83% of them were over 55 years of age. Cases of heroin addiction in persons over 40 years old are known to be rare and, therefore, only data for the 15-40 age group are considered here.

A total of 117 cases of serum hepatitis occurred among patients 15 to 40 years old and a majority of these cases could reasonably be con-

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Mr. Engel and Mr. Moore are students at the Medical College of Georgia, Augusta.

TABLE 1.—AGE, RACE AND SEX DISTRIBUTION OF PERSONS DYING OF HEROIN OVERDOSAGE, JANUARY, 1968-DECEMBER, 1969, DADE COUNTY, FLORIDA.

	WHITE			NEGRO		
AGE GROUP	MALE	FEMALE	%	MALE	FEMALE	%
<15	0	0	0	0	0	0
15 - 20	7	5	33	1	0	17
21 - 25	6	1	20	1	0	17
26 - 30	7	1	23	4	0	66
31 - 35	2	0	6	0	0	0
36 - 40	3	0	9	0	0	0
41 - 45	1	0	3	0	0	0
46 - 50	1	0	3	0	0	0
51 - 55	0	0	0	0	0	0
56+	1	0	3	0	0	0
Total	28	7	100%	6	0	100%

TABLE 2.—AGE, RACE AND SEX DISTRIBUTION OF REPORTED SERUM HEPATITIS CASES, JANUARY, 1969-APRIL, 1970, DADE COUNTY, FLORIDA

	WHITE			NEGRO		
AGE GROUP	MALE	FEMALE	%	MALE	FEMALE	%
<15	0	0	0	0	0	0
15 - 20	39	14	38	9	4	50
21 - 25	12	8	14	6	2	31
26 - 30	5	5	7	2	1	11
31 - 35	3	1	3	0	1	4
36 - 40	2	2	3	0	1	4
41 - 55	2	6	6	0	0	0
56+	22	18	29	0	0	0
Total	85	54	100%	17	9	100%

TABLE 3.—AGE, RACE AND SEX DISTRIBUTION OF HEROIN USERS IN DADE COUNTY JAIL; MAY-JUNE 1970, DADE COUNTY, FLORIDA.

	WHITE			NEGRO		
AGE GROUP	MALE	FEMALE	%	MALE	FEMALE	%
15 - 20	27	2	57	15	1	31
21 - 25	15	1	31	16	4	38
26 - 30	1	2	6	6	3	17
31 - 35	3	0	6	2	0	4
36 - 40	0	0	0	3	0	6
41 - 45	0	0	0	0	2	4
46 - 50	0	0	0	0	0	0
51 - 55	0	0	0	0	0	0
56+	0	0	0	0	0	0
Total	46	5	100%	42	10	100%

TABLE 4.—AGE AND SEX DISTRIBUTION OF PAST AND PRESENT ATTENDEES AT DRUG DETOXIFICATION CLINIC, AUGUST, 1969-JUNE, 1970, DADE COUNTY, FLORIDA.

AGE GROUP	MALES	FEMALES	%
<15	1	0	<1 (0.2)
15 - 20	69	17	16
21 - 25	187	73	47
26 - 30	61	34	16
31 - 35	43	3	8
36 - 40	28	2	5
41 - 45	18	3	4
46 - 50	13	1	3
51 - 55	3	0	<1 (0.6)
56+	1	0	<1 (0.2)
Total	424	133	100%

sidered associated with the injection of illicit drugs, which is chiefly heroin in this community.

The age, race and sex distribution of the 103 prisoners in the Dade County jail who admitted to regular use of heroin is presented in Table 3. There were 51 white and 52 Negroes; 87% were male. Of these prisoners 101 were under 40 years of age confirming the rarity of heroin use in persons over age 40.

Similar demographic data obtained from review of 557 records of the Jackson Memorial Hospital detoxification (methadone) clinic are presented in Table 4. Eighty five percent of 162 patients presently receiving treatment are white and the white-Negro ratio in the clinic is the same as the general population distribution.

Table 5 compares the socioeconomic characteristics of the three heroin study groups with the population at large according to median income data of residence, 1960 census tract. Figure 1 illustrates the socioeconomic distribution of heroin cases and the general population.

Comment

The demographic data from the respective sources confirm a common profile of the drug problem in this community. It is found most commonly among persons under 25 years of age and is rare after age 40. Males predominate and a smaller number of females who admitted to heroin usage were found in the jail than would be expected on the basis of data from other sources. The sex ratio suggested that there were four male heroin users to one female.

The race specific incidence of this community disease did not suggest any racial preponderance, and comparison of incidence rates reflected the white-Negro ratio in the general population, with the exception of the jail, where differences reflected the preponderance of the Negro in the jail (60%). Among prisoners under 20 years of age, the incidence of heroin use in whites was greater than the Negroes. Examination of the records revealed that a larger proportion of the whites than Negroes were jailed for sale and possession of drugs. Most often Negroes were apprehended for law violation other than drug crimes.

An effort was made from the 1960 census tract to gauge the socioeconomic strata of heroin users by classifying the individuals from each group by place of residence and median income of its families. Most of the white users came from homes with annual family incomes estimated at $5,000-$7,000, which coincides with the median income of the white general population. The Negro users tended to come from families whose annual income was $3,000-$6,000; this range is somewhat higher than the median income of the Negro general population based upon 1960 data. Apart from this, heroin users were found to be distributed throughout the socioeconomic spectrum affecting the poor, middle class and affluent proportionately.

Table 5.—Distribution of Heroin Users and General Population by Race and Median Income of Census Tract of Residence (1960 Census), Dade County, Florida 1968-1970.

		% of Sample by Median Income of Census Tract						
		%	%	%	%	%	%	%
A. White	n*	$1-2,000	$2-3,000	$3-4,000	$4-5,000	$5-6,000	$6-7,000	$7,000+
Serum Hepatitis (15 - 40 years)	91	2.2	0	10.7	23.8	37.6	16.1	9.8
Detoxification Clinic	98	4.1	4.1	21.4	30.6	22.4	16.4	1.0
Prisoner Heroin Users	51	2.0	15.7	15.7	15.7	39.2	11.8	0
General Population Distribution	847,000	2.6	6.8	14.4	21.0	26.1	16.7	12.5
B. Negro								
Serum Hepatitis (15 - 40 years)	26	0	30.4	47.8	8.7	4.4	8.7	0
Detoxification Clinic	24	4.2	20.8	66.7	8.3	0	0	0
Prisoner Heroin Users	52	0	42.3	30.8	17.3	9.6	0	0
General Population Distribution	133,000	1.3	52.0	40.5	2.5	2.1	.9	.8

*Number with addresses classifiable by census tract.

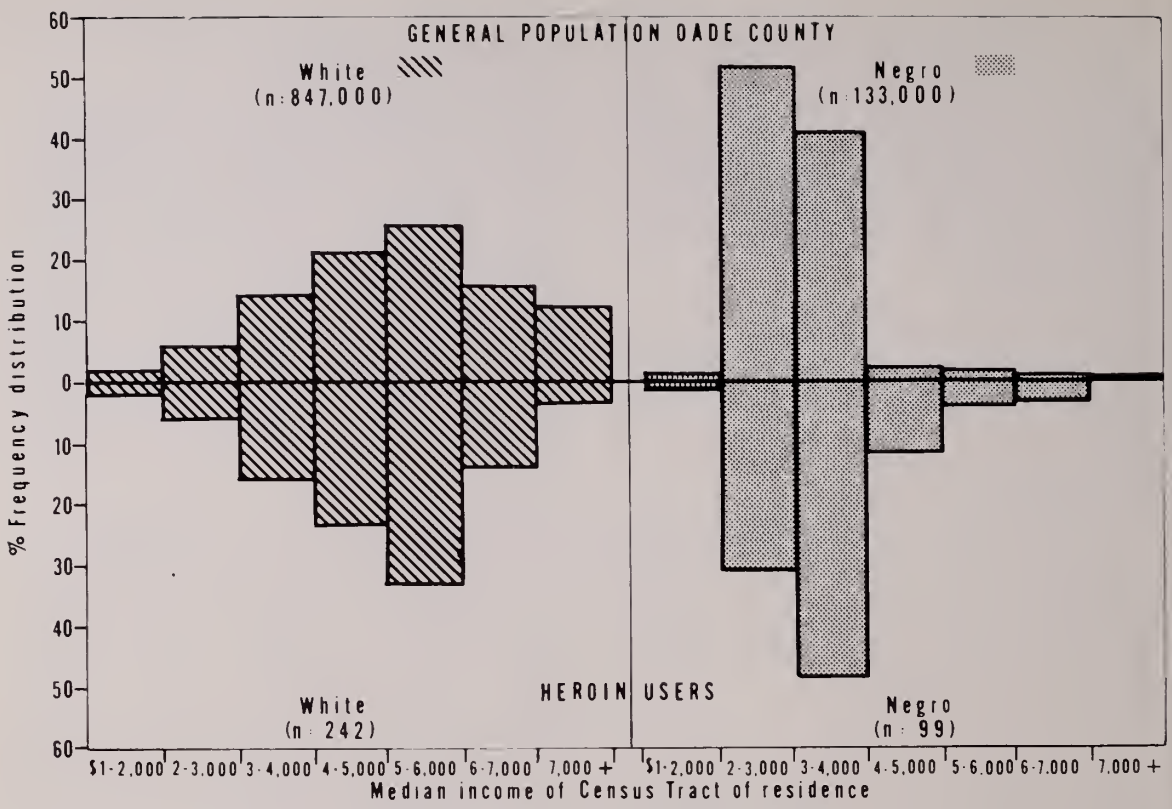


Fig. 1.—Distribution of general population and heroin users by race and median income.

The similarity of demographic and socioeconomic characteristics obtained by these selective special population studies support the concept that collectively these data can be used to reliably monitor the drug scene in a given community.

Summary

In this community heroin usage is distributed between the races in proportion to their numbers, is most common in the 15-25 age group, and relatively rare after age 40. Males and females are involved about 4:1. Using the median income of the census tract of the individuals' residences as an expression of the socioeconomic characteristics, the data indicated that heroin users were distributed in approximately the same proportion as observed in the general population.

Acknowledgements

We wish to acknowledge the cooperation of Mr. Shelby Mitchell, Assistant Director of the drug detoxification clinic at Jackson Memorial Hospital, Dr. Milton S. Saslaw, Director of the Dade County Department of Health, and Mr. Jack Sandstrom, Director of the Dade County jail, Miami.

Reference

1. Hearing before the Special Subcommittee on Alcoholism and Narcotics of the Committee on Labor and Public Welfare, United States Senate. Parts 1-4, U. S. Government Printing Office, 1970.

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PLEASE.

Take a moment and fill out the questionnaire on page 32a. It is self-addressed, postage paid and will be a tremendous help to us in improving your Journal.

Acute Toxic Effects of Drug Abuse Diagnosis and Treatment

Recognition and management of acute toxic effects of drug abuse and of withdrawal reactions confront many physicians in their practice and demand increasing attention in hospital emergency rooms. Laboratories are equipped to identify many of the drugs but treatment often becomes necessary before results are reported. Also, these tests are not always available. Usually diagnosis must be made and treatment started on the basis of clinical findings.

Often treatment will be complicated by a noncooperative patient and the absence of other persons who could supply information which would enable identification of the drug.

Hallucinogens

The hallucinogens may induce a hypersuggestible state and hyperactivity which the physician can control with reassurance and gentle but authoritative directions. The patient should be urged to keep his eyes open; this generally reduces the intensity of symptoms. When sedation is necessary, the phenothiazines often are effective; however, they may be hazardous in the presence of an anticholinergic drug. A barbiturate such as chlordiazepoxide (Librium) or diazepam (Valium) should be used when there is doubt. If the blood pressure is depressed, all central nervous system depressants should be used with caution.

Narcotics

Overdosage produces similar clinical states with all the narcotics. Plasma expanders and possibly pressor drugs are essential if the patient is in shock. Oxygen and diuretics may be needed in pulmonary edema and manual or mechanical artificial respiration in severely depressed respiration. Mildly depressed respiration requires administration of a narcotic antagonist such as nalorphine in a dosage of 2 to 10 mg., depending upon response. The drug is repeated as needed until breathing and other vital functions become normal. A narcotic antagonist may aggravate respiratory depression in patients with barbiturate poisoning, withdrawal reactions, or mixed opiate-barbiturate abuse.

For the withdrawal syndrome resulting from the narcotics, which develops about eight to 12 hours after the last dose, methadone 10 to 20 mg. orally with a total of 40 to 60 mg. the first day should be administered. The dosage is reduced by 5 to 10 mg. daily and at the end of a week the patient should be relatively comfortable. If sedation is needed, a nonaddictive tranquilizer may be given.

Barbiturates

For acute intoxication with barbiturates and other central nervous system depressants, treatment principally supports cardiovascular and respiratory functions. Peritoneal dialysis or hemodialysis may be required. The airway must be maintained and oxygen and intravenous fluids may be needed. Gastric lavage or activated charcoal may remove the unabsorbed drug from the stomach.

Withdrawal reactions may be associated with cardiovascular collapse and death; at times even mild symptoms herald impending convulsions. The patient should be hospitalized and treatment supervised by an anesthesiologist or other experienced clinician. Mildly or moderately addicted patients may respond to a gradual reduction of drug dosage over a period as long as two weeks. In more severe cases, treatment can be started with a test dose of 200 mg. pentobarbital or similar barbiturate, orally or parenterally; the patient is examined 90 minutes later. When this dosage controls withdrawal symptoms and mild intoxication, manifested by inconstant slow nystagmus on lateral gaze, slight dysarthria, and swaying but not falling in the Romberg test, it is given orally every six hours. The patient is re-examined 90 minutes after each dose since pentobarbital has cumulative effects. If the patient becomes grossly ataxic, has constant nystagmus, dysarthria and emotional lability, too much pentobarbital has been given. At the end of the initial 90 minutes if he is tremulous, agitated, and twitching, a larger amount is necessary; it should be given in the same dosage or small increments. When stabilized, the patient is maintained at that dosage for a day or two,

then it is reduced progressively by 100 mg. or less daily.

Convulsions, delirium and high fever constitute emergencies and the patient should be given pentobarbital 200 mg. intramuscularly at once. Additional 100 mg. doses are given hourly as needed to produce sleep and then as required to maintain sleep for eight to 12 hours. Then the stabilization dose is determined. Diphenylhydantoin (Dilantin) prevents barbiturate withdrawal seizures only when the patient is an epileptic.

Amphetamines

In the treatment of acute intoxication from amphetamines, as little as 100 to 200 mg. of dextroamphetamine can be lethal in the nontolerant person. Phenmetrazine (Preludin) and methylphenidate (Ritalin) have similar effects. Treatment consists of support of the vital functions, with chlorpromazine used to control physical, mental and autonomic disturbances. Abruptly ceasing the drug may be the only treatment required for the withdrawal syndrome.

Symptoms and Signs of Drug Abuse*

Agent of Abuse	Acute Intoxication	Withdrawal Syndrome
HALLUCINOGENS LSD Type LSD Psilocybin Mescaline STP DMT	Pupils dilated, reactive to light; blood pressure elevated; tendon reflexes hyperactive; sweating; gooseflesh. Anxiety; sensorium often clear; distortion of body image and of sensory perception; kaleidoscopic visual hallucinations; delusions.	No specific syndrome
Cannabis Marijuana Hashish THC	Pupils normal; conjunctivae red; tachycardia and postural hypotension. Sensorium often clear; distortion of perception and body image; hallucinations rare.	No specific syndrome
Anticholinergics Atropine Scopolamine Belladonna Antihistamines	Pupils dilated, fixed; flushed dry skin and mucosa; urinary retention. Sensorium cloudy; disorientation; amnesia, nonsensical answers; visual hallucinations without perceptual distortion; body image altered.	No specific syndrome
NARCOTICS	Pupils pinpoint, fixed, blood pressure and respiration depressed; coma; shock; pulmonary edema. Sensorium depressed, although some patients may be alert and appear normal.	Pupils dilated, reactive to light; pulse rate, blood pressure, temperature, and respiratory rate elevated; muscular aches and twitches; nausea; vomiting; diarrhea; dehydration; weakness; chills; rhinorrhea; lacrimation; gooseflesh; yawning; restlessness, followed by sleep.
BARBITURATES, MEPROBAMATE, AND OTHER CNS DEPRESSANTS	Pupils normal; blood pressure and respiration depressed; nystagmus on lateral gaze; tendon reflexes depressed; ataxia; slurred speech; coma; shock. Confusion.	Tremulousness; insomnia; high fever; clonic blink reflex; convulsive seizures; cardiovascular collapse. Agitation; delirium; psychosis.
AMPHETAMINES	Pupils dilated, reactive to light; blood pressure elevated; cardiac arrhythmia; tendon reflexes hyperactive; dry mouth; sweating; shallow respiration; high fever; circulatory collapse. Sensorium usually clear in milder cases; in severe cases, confusion, paranoid ideation, stereotyped activity, irritability, and aggressive behavior especially after "speed" injections.	Although classical physical dependence does not occur, "withdrawal" symptoms such as somnolence, muscle aches, ravenous hunger, depression, and apathy do occur.

*These depend largely on dosage and duration of abuse.

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The M.D. and the Alcoholic

Thomas M. Quehl, M.D.

Since April 1967 when my article, "The Philosophy and Pathogenesis of One Practitioner's Treatment of Alcoholics and Alcoholism," appeared in the Journal of the Florida Medical Association, much has happened to intensify my efforts in the treatment of alcoholics. I have received requests for further information, invitations to address various medical societies and groups, and exposure to an additional wealth of information about the current treatment of alcoholics in our society.

As you are well aware, much emphasis has been placed recently on the treatment of the drug addict. Much time, money and effort has been spent in various methods of educating the general population to the problem of drug abuse. Only recently, Dr. Galelo McHugh of Duke released a Drug Knowledge Inventory test which was written up in one of our lay periodicals. The most recent reference I can find stipulates that, in spite of our efforts to date, the abysmal lack of knowledge on the part of the average individual about drugs in general leaves only one interpretation and that is: our efforts have been in the wrong direction. I have joined the crusade on drugs by personal participation on panels and in groups offering treatment and education to various components of our society. I have consistently belabored the point that while our knowledge of the true effect of drugs on the human being is nowhere near complete, our knowledge of the ravages of alcohol is increasing every day.

One need stray no further than his own practice or hospital to have many concrete examples of total human and/or organ deterioration due to the ravages of ethanol. I find it hard to believe that the drug abuse problem with its comparatively small number of individuals involved could attract such nationwide attention while the ever-mounting alcohol problem continues to stumble along with little physician-participation in spite of the excellence of our knowledge and treatment available today. It has been my finding over the years that the only individuals in or out of medicine actually concerned enough to involve themselves in "habilitation" of the alcoholic are those who have personal knowledge of the human tragedy and waste involved, usually within their own family. Believe me, we are trying to use each such individual to the ultimate of his or her potential.

More recently many excellent articles have been written about "Beer Drinker's Heart Disease." It has been interesting to me how little common knowledge among physicians exists about the ravages of alcohol on the heart muscle and the kidney which detoxify almost as much ingested alcohol as the liver. Recently released statistics also reveal that more than one third of the patients admitted to some statewide alcoholic rehabilitation programs have never consumed anything stronger than beer. This fact at first I found hard to accept. It appears there is no escape for the individual to the development of alcoholism even if he limits his intake to what one would consider normally mild or minimal alcoholic beverages.

In my last article on alcoholism I devoted little time to the use of disulfiram (Antabuse). My feelings at that time were that my patient control was inadequate to permit me routinely to use Antabuse. I find now, after additional experience in this field, that I feel much safer using Antabuse in the selected patient whose pattern reveals to me and to him that he is going to require some crutch if he is to avoid a return to alcohol.

Project Alpha

Approximately four years ago, a group of professional and business men in St. Petersburg recognized the immensity of the problem within our own community. It was calculated and substantiated that there were more than 18,000 active alcoholics in Pinellas County alone. Obviously, the number was increasing every hour. We developed a concept which we named Project Alpha, selected to signify a new beginning. By working with this group, I have been able to further expand my therapeutic efforts and more carefully evaluate our successes to date.

We constructed a 28 day live-in program as the basic building block. Some of our patients

Dr. Quebl, for past 3 years, has been Medical Director of Project Alpha which is funded by the Governor's Task Force on Alcohol and Dangerous Drug Abuse. On Dec. 16, 1970 he was officially appointed to the Governor's Advisory Council on Alcoholism, with an official commission in the Bureau of Alcoholic, Division of Mental Health, Department of Health and Rehabilitative Services.

have stayed longer. We included work therapy which greatly improved the facility we were then occupying. We included professional counseling and lay counseling by arrested alcoholics. We included open and closed meetings of Alcoholics Anonymous. We built the program around the re-establishment of, or the reawakening of, the religious conviction of the individual. We established further, a program whereby we could heal or re-establish family ties. Vocational Rehabilitation assisted us greatly with counseling. The State Alcoholic Rehabilitation Program assigned to us a one-day-per-week full-time professional counselor. A rather rigid set of rules and regulations for application within the house were drawn up. We found this routine to work very well with minor adjustments as we lived with it. Initially there was no funding for indigent patients but we had very little opportunity to otherwise be selective about our patients. In fact, from the beginning, our indigent population averaged 40% of our total occupants. There was not any funding other than the fee for service paid by the patient. Our initial fee of $280 was increased eventually to $350. The patient or some agency was responsible, furthermore, for whatever medical, psychological or psychiatric care might be needed. By and large, the majority of the patients were nursed through the acute withdrawal and the entire program with little outside professional help, due to the excellent cooperation of the recovered and recovering alcoholics involved in, or interested in, the program.

Over a three-year period, our "cure" rate (I prefer to use the term arrested) was 70%. Obviously this is two or three times greater than any other reported program. We do not anticipate that this high percentage will continue indefinitely, but we are constantly striving to maintain this or even improve upon it. We feel that there are certain definite reasons why this occurs. I will try to outline a few. We feel that the alcoholic patient within the community gets off on the wrong foot if he is rejected from the community and sent to some isolated area to begin his recovery. Our facility has served as a transitional house for people returning from such facilities. It enables them to get back into the community and find their equilibrium while working into a job without any undue notoriety or publicity. We feel that a home-like quality to such a facility with the people actually in the program responsible for implementation of the house rules gives progressively increasing responsibility and privileges to each participant. We found that the contribution of the various religious organizations was of tremendous help. For some reason, invariably, an alcoholic has somewhere in his past history a very rigid or profound religious conviction or upbringing. As the active alcoholic begins his deterioration and stepwise loses the respect of his employers, relatives, associates and finally himself, there is a total and complete disruption of this religious conviction or state. I, for one, do not think any program charged with such emotional fervor as the alcoholic recovery program could long endure at any such quoted arrest rate without constant and strong church participation and support.

Many times after completing the course of 28 days, it became obvious that an individual patient was not quite ready to return to general society. Many required some training in some field of work that would enable them to support themselves and avoid a return to the milieu from which they arose. Vocational Rehabilitation, with its on-the-job training and support for the transitional border program, gave us a wonderful opportunity to keep some of these people under our observation while they were trained and progressively worked into jobs away from the facility.

I am sorry to say that we had to close Project Alpha in its initial location in March 1970. However, I now can counteract that by saying we have reopened at 4701 Third Avenue South in St. Petersburg in a beautiful, large, ample home. We elected in February 1970 to curtail operations rather than try to "shoestring it" so that we could keep our track record intact while we solicited funding. We had a public appeal for funds so that we could purchase a permanent facility. I wrote an appeal to our physicians in our local medical society magazine and received some financial support. We applied repeatedly to our County Commission and other governmental agencies and were repeatedly, politely, turned away. Everyone we approached agreed that the program to that point had been an excellent addition to the community, but the sad fact was that there were no dollars available for implementation of, or participation in, any new program regardless of how meritorious it might be. By continuing efforts, we were able to gain appointments for evaluation and reevaluation by various state agencies. With the help of the Governor's Task Force on Crime, Drug and Alcohol Abuse, we were able

to be funded for the last half of 1970 by matching with local in-kind services and cash donations. Our new facility is open for the treatment of both drug and specifically alcohol abusers.

It has been interesting to watch the interplay between these two groups of people. In our discussion session, it is interesting to note the initial response when one calls the other a "stupid lush" and has in reply the charges of a "dumb junkie." It does not take these people long to realize, however, that they have somewhere a chemical, biological, or personality defect that does not permit them to cope with the problems of day-to-day living in our society without the support of a crutch of one drug or another. They have become psychologically and physically dependent upon a certain circulating amount of chemical within the system. At this point, our process of "habilitation" begins going back to our name of Alpha or a new beginning.

Legal Consideration

We have been able to enlist the aid of a number of enlightened judges in our area. To a well-meaning individual who is arrested for his first offense concerning drunkenness or the use of alcohol, the judges offer an alternative to a specified jail sentence and outline the plan of therapy available. If the patient chooses to conscientiously follow such a plan for his own personal gain, the charge may be suspended for a reasonable period of time during which the judge will hold the sentencing in abeyance. If, however, he has any other brush with the law involving alcohol within a certain period of time, he must then contend with three charges including the first, the bench warrant and the new charge. Even beyond this, our director feels (contrary to my own philosophy) that if the individual does indeed begin upon a new track towards a positive goal and then slips within the first 18 month period that we might again request a trial period to see if we can reorient the individual to a positive program. The other possibility may in fact be that the judge will force the individual to serve a portion of the sentence and then offer him the alternative of getting back into the program. However, beyond this point, we are in definite agreement that if the individual slips again after the first such offense, we do not again go to his rescue.

Drug Administration

With the control we have in a live-in-facility-type of treatment as outlined in this paper, I have felt much more confident in utilizing Antabuse in my therapeutic regimen. To date, I have implemented such therapy in more than 100 patients. I have not had to interrupt or discontinue therapy in but one patient of this total number because of a reaction to the drug not related to a combination of the drug with alcohol. I did have one close call when a patient on Antabuse was taken to a birthday surprise party for himself and a banquet. Some well meaning but totally misguided individual induced the patient to sample a punch with a very minimal alcohol content which he assured the patient was nonalcoholic. After a few sips the patient had the classical Antabuse-alcohol challenge reaction, slumped to the floor and was rushed to the nearest emergency room facility. By the time I arrived at the emergency room, all concerned were in a genuine flap about the cause of a total collapse for no apparent reason. The administration of IV Vitamin C, as anticipated, gave the prompt and complete recovery with no residual damage apparent to date. However, it appears one must counsel even well meaning friends in such a situation. I now have more than 25 patients who are working regularly and contributing to the tax structure while continuing to take Antabuse in excess of three continuous years. To date, no abnormal laboratory studies and no signs or symptoms of any problems have developed in these patients.

The mainstays of my therapy continue as outlined in my previous article and remain quite flexible, depending upon the severity of the withdrawal pattern in the individual mentioned. It is hoped by the directors of Project Alpha that we will continue to get some support of our building fund to enable us to purchase the property we are now occupying. Furthermore, we also hope to purchase additional property in which we will be able to construct our own acute detoxification center. We intend to staff this preferably with trained psychiatric nursing personnel including those who have recovered from a drug or alcohol problem themselves. We find these people to be invaluable to our program. Naturally, I am hopeful that funds will become available to enable the center to hire a full-time medical director and release me from the continuing responsibility of donating in-kind services.

More recently, we have begun to depend more heavily upon a relatively new drug called mesoridazine (Serentil). I have found it particularly useful in the acute withdrawal phase given paren-

terally. It also has proven to be an excellent back-up therapy in certain selected patients with major psychoneurotic or borderline psychotic behavioral patterns who have not responded to the other drugs we have used to date. I am hopeful that this will prove to be a very useful addition to our armamentarium.

Alcoholism—A Disease

In spite of all that has been written to date within and without the medical community, the debate appears to continue over whether or not alcoholism is in itself a disease entity. I imagine we will continue indefinitely to have some of our colleagues feel that this is a self-inflicted illness with which they do not wish to be associated. Many of us in this field have been favorably impressed, however, by recent articles released in various medical periodicals pertaining to work going on in the National Institutes of Health, or under auspices of the National Institutes of Health, in which several investigators have demonstrated that there is a basic difference in the detoxification and effect pathways of alcohol in the nonalcoholic compared to the alcoholic. It appears that in the alcoholic individual, alcohol may in fact be detoxified along, and produce its effect upon, the same pathways of morphine and heroin particularly in the narcotic addict. Should this prove to be a valid thesis, one would hope that eventually we will find the biochemical or endocrinological failure apparently inborn or acquired by the individual who has a predisposition to become an alcoholic. Obviously, alcohol is not going to be removed from our society by prohibition. If, however, we could spot the individual in a screening procedure who has a predisposition to alcoholism, it would indeed be a wonderful addition to our knowledge. Then we could merely point out as we counsel with him that the problem or potential was there and so long as he avoided his first exposure to alcohol, he need not worry about development of the disease itself. While some people seem to feel it is a major handicap for any human being to avoid alcohol in his daily living, our diabetic patients seem to have no great problem avoiding sugar if they are of a mind to control their disease.

Again, I urge each and every one of you to consider participation in any such program that might develop or be developed by your efforts in your community. Furthermore, I implore you to call the disease of alcoholism exactly what it is, avail yourself of the information which you can implement for your patient and his family and maintain constant, continuing pressure on industry and the insurance companies to provide medical coverage for this ever-increasing, frequently-tragic disease.

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Recognizing a fundamental distinction between drug use and abuse, a multiplicity of approaches is recommended in the treatment of the latter. These include reliable research and study by youth as well as adults into the motivation for such abuse and what, if any, alternative and less potentially harmful life experiences may satisfy drug users. It means diversified clinics and a modification of laws prohibiting physicians from administering methadone or a maintenance dose of narcotics, more detoxification clinics, greater control of medically prescribed psycho-pharmaceutical drugs, a transfer of drab abuse problems from law enforcement agencies to public health agencies with the full responsibility for research activities in the hands of the latter. It means the encouragement of physicians and general hospitals to treat drug and alcohol addicts.

Alcohol and Other Drug Dependencies

Ten Basic Concepts

Ronald J. Catanzaro, M.D.

Alcohol is one of the most ancient and ubiquitous social beverages and socially accepted drugs. During the last several hundred years use of other drugs such as nicotine, caffeine, and even opium have become widespread throughout the world, socially acceptable in a number of subcultures and unacceptable in others.

During the last quarter century new drugs such as LSD have been synthesized and have come into widespread use. Their use has not, and may never, receive general social acceptance. Also, old well known drugs such as marijuana have gained a new popularity among social subgroups which previously did not customarily use these drugs, i.e., the teenage students.

When planning treatment, research, prevention and educational programs in drug dependencies one should keep clearly in mind a number of basic concepts. Ten of the most important are explored briefly in this paper.

Dependency Producing Drugs

When discussing the abuse of alcohol or any other individual drug, one must consider misuse as part of a broad problem involving misuse of dependency producing drugs in general. Here two quotations from the World Health Organization Expert Committee on Addiction Producing Drugs[1] are appropriate:

> There is scarcely any agent which can be taken into the body to which some individuals will not get a reaction satisfactory or pleasurable to them, persuading them to continue its use even to the point of abuse—that is, to excessive or persistent use beyond medical need. Probably the only exceptions are agents that have incidental or side effects that prevent such use—for example, cumulative or early toxic effects, to which the individual does not become tolerant.

The report continues:

> Drug dependence is a state of psychic or physical dependence, or both, on a periodic or continuous basis. The characteristics of such a state will vary with the agent involved, and these characteristics must always be made clear by designating the particular type of drug dependence in each specific case: for example, drug dependence of morphine type, of alcohol-barbiturate type, of amphetamine type, etc.

Categories of Drug Dependence

The major types or categories of drug dependence, a term which has replaced both the terms "drug addiction" and "drug habituation," are as follows:*

Types of Drug Dependencies

Alcohol—Barbiturate—sedative—tranquilizer
Morphine (heroin, demerol, codeine, paregoric)
Cocaine
Cannabis (marijuana)
Amphetamine (Dexedrine, Methedrine)
Khat
Hallucinogens (LSD, STP, morning glory seeds, nutmeg, beattle nut)
Organic Vapors: glue, Toluene, acetone, gasoline, paint thinners, Freon
Nicotine (cigarettes, cigars)
Caffeine (coffee, tea, colas)

Physical vs. Psychological Dependence

It should be noted that of all the dependency producing drugs, the only categories that produce true physical dependence in addition to psychological dependence are the alcohol-barbiturate and morphine related group. All others produce psychological dependence only.

The physical withdrawal syndrome in alcoholism is called delirium tremens. A similar withdrawal syndrome occurs upon cessation of use of barbiturates and certain tranquilizers. A different but comparable withdrawal syndrome is seen upon sudden cessation of morphine and related drugs. Stopping use of other dependency producing drugs is associated with many complications, but research so far does not indicate these are due to development of physical dependence.

Drug Use by Definable Groups

Use of drugs has some tendency to take place most often in fairly well definable socioeconomic and age groups. Each year the lines between these groups become more and more blurred and may well become nonexistent in the near future.

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*This classification of drug dependencies is a modification by the author of this paper of a classification originally proposed by the World Health Organization Expert Committee on Addiction Producing Drugs in a publication cited as the first reference in this article.

Group I.—Alcohol, barbiturates, etc.: All economic groups, some abuse during teens and 20's, addiction during 30's and 40's.

Since alcohol is one of the most widely used and readily available dependency producing drugs in the United States, we find those who have become over-dependent, i.e., alcoholics, to be the single largest group of drug abusers. These persons often substitute other alcohol related dependency producing drugs, either when alcohol was not available or when they were trying to get away from its use. Dependency prone men in their 30's and 40's will by far most often choose alcohol. Dependency prone women may just as often choose tranquilizers or sedatives.

A quite useful concept to keep in mind regarding Group I drug abusers is the concept of "alcohol and related addicting drugs."[2] By this is meant drugs whose subjective and physical effects on the individual are quite similar even though the chemical formulas vary widely. These drugs demonstrate cross-tolerance, that is, if a person is addicted to one of the drugs in this category, his withdrawal reaction can be modified or completely prevented by use of any other of the drugs in this group. A list of these alcohol-related addicting drugs follows:

Alcohols (Ethyl, Methyl, etc.)
Barbiturates (phenobarbital, Nembutal, etc.)
Paraldehyde
Chloralhydrate
Doriden (glutethimide)
Valmid (ethinamate)
Placidyl (ethchlorvynol)
Noludar (methprylon)
Miltown (meprobamate)
Valium (diazepam)
Librium (chlordiazepoxide)
Vistaril (hydroxyzine)

Group II.—Morphine, Marijuana, and Organic Vapors: Lower socioeconomic minority groups (Negro, Puerto Rican, Mexican, "Poor white trash" in cities and Southern states), in their teens, 20's and 30's. Also professionals in medical related fields in their 30's and 40's.

Group III.—LSD, Marijuana, Dexedrine: Middle and upper socioeconomic groups in their teens and 20's.

Group IV.—Nicotine, Caffeine: all economic groups, lifelong beginning in teens, not uncommonly develops debilitating dependence.

Alcohol-barbiturate and related addicting drugs' ingestion in small amounts over long time periods does not produce physical dependence although it may produce psychological dependence. Ingestion of larger amounts of these drugs over a long period of time often produces physical as well as psychological dependence. Abruptly stopping produces a characteristic withdrawal syndrome which is quite similar no matter on which drug in this category a person was physically dependent.

Normal vs. Abnormal Alcohol Dependency

A concept to consider when understanding the development of alcoholism is that of "normal alcohol dependency" versus "alcohol over-dependency."[3] Since about 50% of adult Americans drink alcohol more or less regularly throughout their lives, i.e., social drinkers, one can certainly state that regular use is a normal or common event. A large portion of social drinkers would certainly be ill at ease if they were invited to a social gathering and found no alcoholic beverage. These people may be described as having developed a normal or widely prevalent and socially acceptable psychologic dependence on alcohol, i.e., on given occasions they depend on having alcohol available, but drink it in amounts which are generally socially acceptable and behave in a socially acceptable way while drinking.

Characteristics of Normal Alcohol Dependency: a. Drinking on socially accepted occasions, b. Drinking socially acceptable amounts, c. Exhibiting socially acceptable behavior while drinking.

A small percentage of these social drinkers, about one out of 16, progress in their level of normal psychological dependence to the point that they become pathologically over-dependent on alcohol, i.e., they develop physical as well as psychological dependence. These people we call alcoholics. They exhibit problems in the area of their health or interpersonal relations with family, friends and employers.

Characteristics of Alcohol Over-Dependency: a. Drinking on socially unacceptable occasions, b. Drinking in socially over-excessive amounts, c. Exhibiting socially unacceptable behavior while drinking.

Etiologic Factors In Causing Abnormal Alcohol Dependency

What would promote one out of 16 social drinkers to become over-dependent on alcohol, i.e.,

an alcoholic?[4] Three main areas are probably involved.

A. Biologic: Some abnormality of body chemistry which results in a compulsion to continued and excessive drinking. Exactly what this abnormality may be is unproven. The most prominent possibilities are:
 (1) A deficiency of certain enzymes, vitamins, or amino acids which result in an excessive need for the food alcohol.
 (2) An allergy which gradually develops and causes the drinker to exhibit an unusual reaction to alcohol consumption.
 (3) Hormone deficiencies (thyroid, adrenal, sex hormones) causing an unusual need for alcohol, etc.

B. Psychologic: This includes internal psychological conflicts, personality or character problems, major psychiatric illnesses such as manic-depressive disease and schizophrenia. Also important are continued external psychological stresses resulting from such events as an unhappy marriage, poor job adjustment, a crippling illness, etc.

C. Sociocultural: Certain societies condone regular consumption of rather large amounts of alcohol and there is a relation between amount of alcohol consumed in a given society and amount of alcoholism in that society. However, the rate of alcoholism in a society is also affected by religious and ethnic factors and the beverage consumed. For example, in France where much alcohol is consumed in the form of distilled spirits, approximately two times more absolute alcohol is consumed per person than in Italy, a primarily wine-drinking country. Yet, the rate of alcoholism is four times greater in France than in Italy.

In spite of the fact that alcoholism can likely develop from many combinations of these factors and at any busy alcoholism treatment service one can see alcoholics who have additional psychiatric diagnoses ranging from psychosis, neurosis, personality disorder, mental deficiency, and chronic brain syndrome to having no other diagnosis except alcoholism, most studies agree that the majority of alcoholics come from the personality disorder group, i.e., passive dependent and passive aggressive types.[5] Particularly prominent characteristics of a majority of alcoholics are depression, loneliness, feeling of inadequacy, and vast amounts of stored up anger which he has been unable to successfully dispel.

Five Basic Mechanisms of Defense in Alcoholics

Therapists will find in their alcoholic patients with great regularity the persistence of five basic mechanisms of defense which must be dealt with successfully before the alcohol over-dependency can be arrested.

Denial: "I can take it (alcohol) or leave it alone."

Projection: "If my wife would just quit nagging me about drinking, I'd quit."

Rationalization: "It calms me down enough so that I work better."

Fragmentation of Reality: "Some days I don't have anything to drink so I couldn't be an alcoholic."

Compulsivity: The recovered alcoholic substitutes compulsive sobriety for compulsive drinking.

Therapy with persons dependent on alcohol related addicting drugs characteristically exhibit these same defense mechanisms. Patients dependent on opiates, Dexedrine, LSD and the other common drugs abused also exhibit similar defense mechanisms even though the drug involved is different.

Morphine and Other Opiates

The main characteristics of morphine dependency are:

1. Strong psychic dependence which manifests itself as an overpowering drive to continue use of the drug.

2. Early development of physical dependency which may well start with the very first dose of an opiate. This requires repeated administration in order to prevent withdrawal symptoms.

3. Tolerance develops which makes it necessary to increase the dose in order to obtain the same pharmacodynamic effect. Heroin causes a feeling of relaxed euphoria and pleasure. The user is characteristically calm and sits in a semidream state—"on the nod." Withdrawal symptoms are very distressing but are not life threatening. Treatment is a difficult process but recent techniques have made successful treatment possible.

Marijuana (Cannabis)

This drug, usually smoked in the form of a cigarette, produces psychological dependency but no physical dependency. It is a mild hallucinogen

and in small doses gives a feeling of euphoria, increased logorrhea, sociability, and sensitivity to colors and sound. In larger doses it gives an effect similar to LSD with marked distortion of time and space.

Marijuana users frequently try other more dangerous drugs such as LSD, Freon, opiates, and Dexedrine. This may be associated with the fact that marijuana users become members of an illegal drug culture and thus are repeatedly exposed to these more dangerous drugs.

Amphetamines (Dexedrine, Methedrine)

These drugs cause an elevation of mood, excitement, nervousness, loss of appetite, sleeplessness and psychosis. Tolerance to unbelievably large doses occurs. Although these drugs produce no definite physical dependence, a very definite group of symptoms occur on sudden cessation of use. Extreme fatigue and need for sleep, depression, and chronic psychotic states develop.

LSD

This drug produces profound psychologic disturbances such as extreme euphoria or fear, marked distortion of time, space, color, and self image, and is used to produce "new psychologic insights" which do not characteristically result in any new significant achievements by the individual. Psychological dependency but not physical dependency develops. Some tolerance develops but disappears rapidly. Chronic states are not infrequently precipitated.

Caffeine and Nicotine

Psychological dependency on these drugs is extremely prevalent and in the case of nicotine, dependence is extremely tenacious. For example, many alcoholics have complained that it is easier to entirely give up the use of alcohol than the use of nicotine. No physical dependence develops, but tolerance to increasing doses is common. Nervousness, irritability and disturbance of sleep, mood and appetite are present while using the drugs and when attempting to stop use of the drugs.

The Total Treatment Approach

Treating drug dependency problems is a multifaceted effort. Alcoholism, probably the most prevalent of all drug dependencies, can be used as a model to describe treatment components.[6] Treatment efforts should be directed on three primary levels of involvement:

Level 1.—Multidisciplinary — Professionals from many disciplines must be knowledgeable and interested in helping the alcoholic. Members of this multidisciplinary treatment team include the family physician, the psychiatrist, nurse, social worker, psychologist, clergyman, vocational rehabilitation counselor, judge, policeman, educator, alcoholism counselor, sociologist, and others.

Level 2.—Multitherapeutic — Many types of therapy have been used in treating the chronic phase of alcoholism. A number have been found helpful in most treatment facilities. These include group psychotherapy, Alcoholics Anonymous, individual psychotherapy, pastoral and vocational counseling, the therapeutic community, and antibuse. Other treatment methods have not been found to be generally useful, but certain limited treatment facilities have reported successes. These include hypnotherapy, conditioned reflex therapy, LSD, religious conversion, and others.

Level 3.—Multilocational — Various facilities have proven to be useful in dealing with the overall problem of alcoholism and should be considered as important parts of a "total treatment approach." Facilities include general hospitals, special alcoholism hospitals and wards, half-way houses, the Salvation Army, Harbour Light Houses, jails, stockades, prisons, state psychiatric hospitals, mental health centers, the family physician's office, welfare agencies, etc. In other words, every facility which handles a significant number of alcoholic patients should have a person knowledgeable in treating alcoholics who will be avalible to give help as needed.

Problem Habits

A problem habit[7] can be defined as a compulsive behavior pattern which is detrimental to the person involved or to those about him. Detrimental includes harming one's physical and/or

emotional health, interpersonal relationships, and occupational performance.

The major categories of problem habits are the following:

1. Socially acceptable use of dependency producing drugs
 - A. Regular social use of alcohol (social drinking)
 - B. Regular use of nicotine (cigars, cigarettes) and caffeine (coffee, tea, Coca-Cola)
 - C. Regular use of medically prescribed or drugstore remedies (sleeping and cough medications, meprobamate, diazpam, barbiturates)
2. Socially unacceptable use of dependency producing drugs
 - A. Problem drinking, alcoholism
 - B. Use of illegal drugs, heroin, LSD, marijuana
 - C. Use of legal drugs in a way other than prescribed by a physician or directed on the package (Dexedrine, barbiturates, nonprescription sleeping and cough medicines)
3. Problem habits—nondrug related
 - A. Compulsive eating
 - B. Compulsive gambling
 - C. Compulsive working
 - D. Compulsive unacceptable sexual behavior (promiscuity, certain types of homosexuality)
 - E. Compulsive stealing and other illegal activities

One should rightly ask after reading the above list of problem habits, "what rationale is there for placing these diverse conditions under a common heading?" The rationale is as follows:

1. In most all of the conditions self-help groups which operate in patterns quite similar to Alcoholics Anonymous have received widespread recognition as being of help. The name of some of these groups are: Alcoholics Anonymous for alcoholics,[8] Narcotics Anonymous for narcotic addicts and alcoholics, TOPS (Take Off Pounds Sensibly) and Weight Watchers for compulsive eaters, Gamblers Anonymous for compulsive gambling, Smokers Anonymous for compulsive smoking, etc.

2. The medically approved treatment of choice for persons suffering from these illnesses is generally agreed to be group therapy. Inpatient or outpatient services which pay particular attention to any one of the above diagnostic groups always invariably have several types of group therapy experiences as a basic part of their treatment program.

3. The goals of therapy are most often to entirely stop the compulsive habit, i.e., completely refrain from the use of alcohol, rather than to simply cut down on the problem habit, i.e., make a social drinker out of an alcoholic.

4. When the problem habit has been completely stopped the activity must be replaced by a number of other activities which also may have compulsive components which are much less damaging to the patient (example, regular attendance at Alcoholics Anonymous meetings for an indefinite number of years).

Much research needs to be done in both the areas of causation and treatment of these illnesses. It is suggested that using the framework of problem habits will result in giving a wider applicability to research data gained from studying any individual problem habit.

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Again this year we are planning an entire issue on the history of medicine. If you are interested in this subject and have something you would like to publish or know someone who can give us an article, please let us know. The deadline for this issue is June 15.

They all have two things in common: they have monilial vaginiti



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It's safe—no side effects, clinical reports of irritation or sensitization have been extremely rare; exact dosage can be assured.[5,6]

It's convenient—easy to use in all forms, encourages patient acceptance and cooperation; therapy can be started in your office.

It's clinically proven—Candicidin is significantly more potent in vitro than nystatin,[1] and has a record of cure rates of 90% and more in pregnant and non-pregnant patients.[2,3,4] In two recent studies, both involving gravid and non-gravid patients, a 100% culture-confirmed cure rate was achieved with 14 days of therapy.[5,6]

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☐ For the gravid patient—easy manual insertion with the need for an applicator or inserter for intravaginal u

☐ For the multiple needs of all your patients—topi application for labial involvement, intravaginal use treat mucosal infestation.

References: 1. Lechevalier, H.: Antibiotics Annual 1959-19 New York, Antibiotica Inc., 1960. pp. 614-618. 2. Olsen, J. Journal-Lancet *85*:287 (July) 1965. 3. Giorlando, S.W., Tor J.F., and Muscillo, G.: Am. J. Obst. & Gynec. *90*:370 (Oct.) 1964. 4. Friedel, H.J.: Maryland M.J., *15*:36 (Feb.) 1966. 5. Gi lando, S.W.: to be published 1971. 6. Decker, A.: Case Repo on File, Medical Department, Julius Schmid.

...y can now be cured with Candeptin. Even these two.





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...icidin Vaginal Tablets, Ointment, VAGELETTES™

...ription: Candeptin (candicidin) Vaginal Ointment contains ...ersion of candicidin powder equivalent to 0.6 mg. per gm. ...6% Candicidin activity in U.S.P. petrolatum. 3 mg. of Can... ...n is contained in 5 gm. of ointment or one applicatorful. ...eptin Vaginal Tablets contain Candicidin powder equiva... ...o 3 mg. (0.3%) Candicidin activity dispersed in starch, ...e and magnesium stearate. Candeptin Vagelettes contain 3 ...f Candicidin activity dispersed in 5 gm. U.S.P. petrolatum.

...n: Candeptin Vaginal Ointment, Vaginal Tablets and Vagel... ...possess anti-monilial activity.

...itions: Vaginitis due to *Candida albicans* and other candida ...s.

...aindications: Contraindicated for patients known to be ...ive to any of its components. During pregnancy manual ...t or Vagelette insertion may be preferred since the use of ...ntment applicator or tablet inserter may be contraindicated.

...on: During treatment it is recommended that the patient re... ...from sexual intercourse or the husband wear a condom to ... re-infection.

...se Reaction: Clinical reports of sensitization or temporary ...ion with Candeptin Vaginal Ointment, Vaginal Tablets or ...ettes have been extremely rare.

...e: One vaginal applicatorful of Candeptin Ointment or ...aginal Tablet or one Vagelette is inserted high in the vagina twice a day, in the morning and at bedtime, for 14 days. Treatment may be repeated if symptoms persist or reappear.

Available Dosage Forms: Candeptin Vaginal Ointment is supplied in 75 gm. tubes with applicator (14-day regimen requires 2 tubes). Candeptin Vaginal Tablets are packaged in boxes of 28, in foil with inserter — enough for a full course of treatment. Candeptin Vagelettes are packaged in boxes of 14. (14-day regimen requires 2 boxes).

Store under refrigeration to insure full potency.

Federal law prohibits dispensing without prescription.

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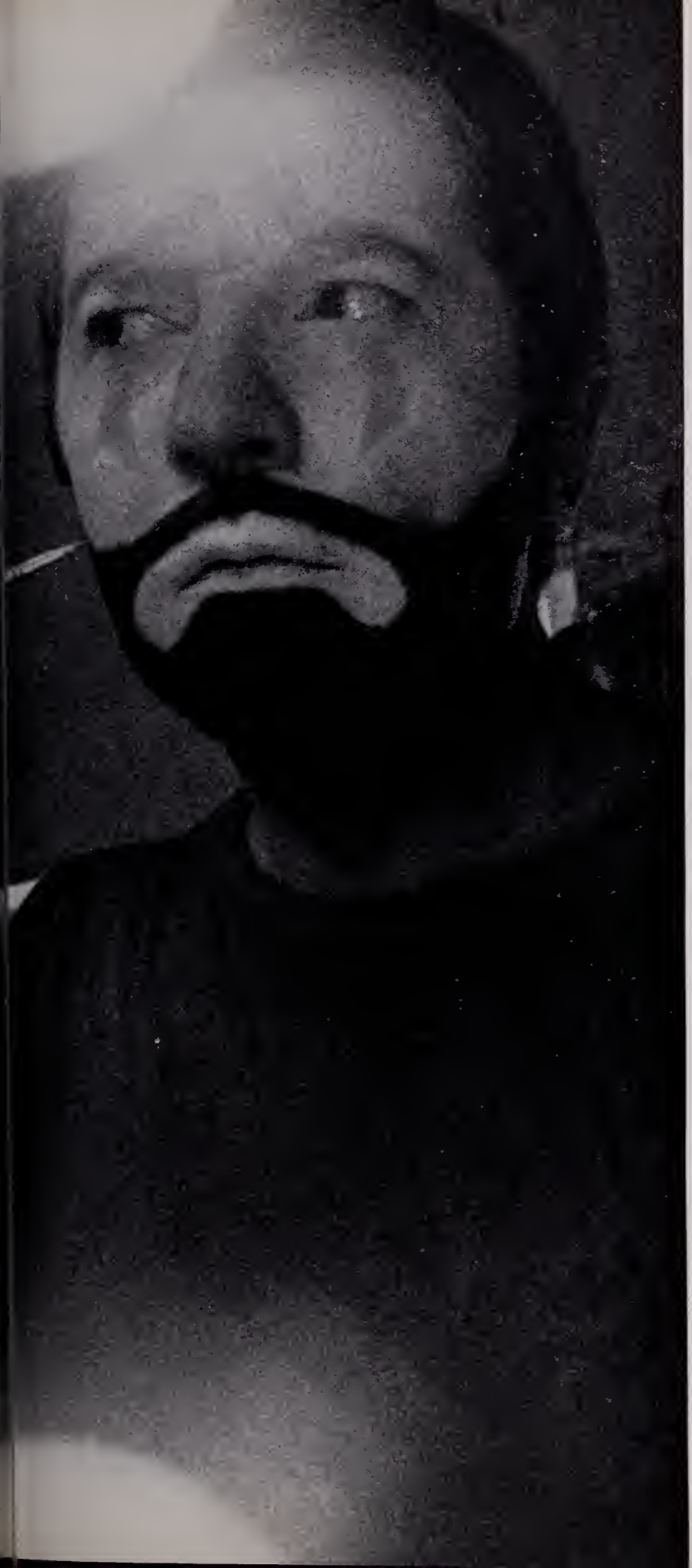
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propantheline bromide

Pro-Banthine 15 mg.
propantheline bromide
with
Dartal 5 mg.
thiopropazate
dihydrochloride

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propantheline bromide
with
Phenobarbital 15 mg.
warning:
may be habit forming

Pro-Banthine P.A. 30 mg.
propantheline bromide
in time-release form

Pro-Banthine 7½ mg.
propantheline bromide
Half Strength



Pro·Banthine®
(propantheline bromide)

Indications: Peptic ulcer, gastroenteritis, pylorospasm, biliary dyskinesia, functional hypermotility and irritable colon.

Contraindications: Glaucoma, severe cardiac disease.

Precautions: Since varying degrees of urinary hesitancy may occur in elderly men with prostatic hypertrophy, this should be watched for in such patients until they have gained some experience with the drug. Although never reported, theoretically a curare-like action may occur with possible loss of voluntary muscle control. Such patients should receive prompt and continuing artificial respiration until the drug effect has been exhausted.

Side Effects: The more common side effects, in order of incidence, are xerostomia, mydriasis, hesitancy of urination and gastric fullness.

Dosage: The maximal tolerated dosage is usually the most effective. For most adult patients this will be four to six 15-mg. tablets daily in divided doses. In severe conditions as many as two tablets four to six times daily may be required. Pro-Banthine is supplied as tablets of 15 mg., as prolonged-acting tablets of 30 mg. and, for parenteral use, as serum-type vials of 30 mg. The parenteral dose should be adjusted to the patient's requirement and may be up to 30 mg. or more every six hours, intramuscularly or intravenously.

Pro-Banthine® 15 mg.
(propantheline bromide)
with
Dartal® 5 mg.
(thiopropazate dihydrochloride)

Indications: Peptic ulcer, spastic constipation, nonspecific gastritis, functional gastrointestinal disorders, pylorospasm, hyperhidrosis, irritable bowel syndrome, mucous or ulcerative colitis, functional diarrhea.

Contraindications: Glaucoma, severe cardiac disease.

Warnings: Pro-Banthine with Dartal should not be administered to patients who are under the influence of barbiturates, alcohol or narcotics. The drug should be administered cautiously to epileptic patients or those in depressed states, patients with liver disease and to pregnant women. Hypersensitivity to Dartal may occur rarely in patients with known sensitivity to similar drugs.

Side Effects: Dryness of the mouth, mydriasis, hesitancy of urination; less commonly extrapyramidal (restlessness, dystonia and signs of pseudoparkinsonism such as muscular rigidity, fixed facies, tremor, ataxia, festinant gait and drooling), parasympatholytic (blurred vision, xerostomia, hypotension, nasal congestion and constipation) and curare-like (loss of control of voluntary muscles, particularly the muscles of respiration) reactions. Rarely, leukopenia or allergic purpura. A generalized erythematous skin reaction may occur. Side effects characteristic of phenothiazines such as grand mal convulsions, altered cerebrospinal proteins, cerebral edema, potentiation of the effects of atropine, heat or phosphorus insecticides, autonomic reactions, endocrine disturbances, reversed epinephrine effect, hyperpyrexia or pigmentary retinopathy may theoretically occur but have not been reported with Dartal. Severe hypotension following recommended doses occurs more commonly in patients who are also afflicted by other medical disorders such as mitral insufficiency or pheochromocytoma, and particular attention should be paid to such a possibility although this has not been observed with Dartal.

Adult Dosage: One tablet three times a day.

Pro-Banthine® 15 mg.
(propantheline bromide)
with
Phenobarbital 15 mg.

Warning: May be habit-forming.

For *Indications, Contraindications, Precautions, Side Effects* and *Dosage* see Pro-Banthine. In addition, phenobarbital should be administered with caution to patients with liver disease, mental disturbances or a significant degree of hypoxia.

Pro-Banthine P.A.®
prolonged acting brand of propantheline bromide

For *Indications, Contraindications, Precautions* and *Side Effects* see Pro-Banthine.

Dosage Form: Capsule-shaped, compression-coated, peach tablets of 30 mg. for oral use.

Dosage: The recommended initial dosage is one tablet in the morning and one at night.

084

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MEETINGS

Approved by FMA Committee on Postgraduate Education

APRIL

17 Fifth Annual Seminar for Physicians, Port-O-Call, Tierra Verde, St. Petersburg. For information: Florida Division, American Cancer Society, 2909 Bay-to-Bay Blvd., Tampa 33609.

19-24 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

23-24 Seminar on Arthritis and Related Diseases, Sheraton Hotel, Jacksonville. For information: William B. Thirlwell, 2522 Oak St., Jacksonville 32204.

MAY

3- 8 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

12-13 Greater Miami Pediatric Seminar, Auditorium, Mailman Child Development Center, Miami. For information: Jack Eff, M.D., 2040 N.E. 163 St., N. Miami Beach 33162.

24-29 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D. c/o Heart Association, Box 10100, St. Petersburg 33733.

National and Regional Meetings Held in Florida

MAY

9-15 American Gastroenterological Association, Americana Hotel, Miami Beach. Sec.: John A. Benson Jr., M.D., 3181 S. W. Sam Jackson Park Road, Portland, Ore. 97201.

12 American Society for Gastrointestinal Endoscopy, Miami Beach. Sec.: Joseph A. Rinaldo Jr., M.D., 16001 W. Nine Mile Rd., Southfield, Mich. 48075.

AUGUST

26-29 United Ostomy Association, Diplomat Hotel, Miami Beach. Exec. Dir.: Donald P. Binder, 1111 Wilshire Blvd., Los Angeles 90017.

30-Sept. 2 Western Hemisphere Nutrition Congress, Americana Hotel, Miami Beach. Info.: AMA Council on Foods and Nutrition, 353 N. Dearborn St., Chicago 60610.

OCTOBER

4- 7 American Academy of Family Physicians, Miami Beach. Exec. Dir.: Mr. Mac F. Cahal, JD, Volker Blvd. at Brookside, Kansas City, Mo. 64112.

12-16 Congress of Neurological Surgeons, Americana Hotel, Bal Harbour. Sec.: Bernard S. Patrick, M.D., University Medical Center, 2500 N. State St., Jackson, Miss. 39216.

NOVEMBER

1- 4 Southern Medical Association, Miami Beach. Exec. Dir.: Mr. Robert F. Butts, 2601 Highland Ave., Birmingham, Ala. 35205.

4- 6 Southern Thoracic Surgical Association, Tampa. Sec.-Treas.: James W. Brooks, M.D., 1200 E. Broad St., Richmond, Va. 23219.



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Chili Beef	6.2	Vegetable Beef	5.0
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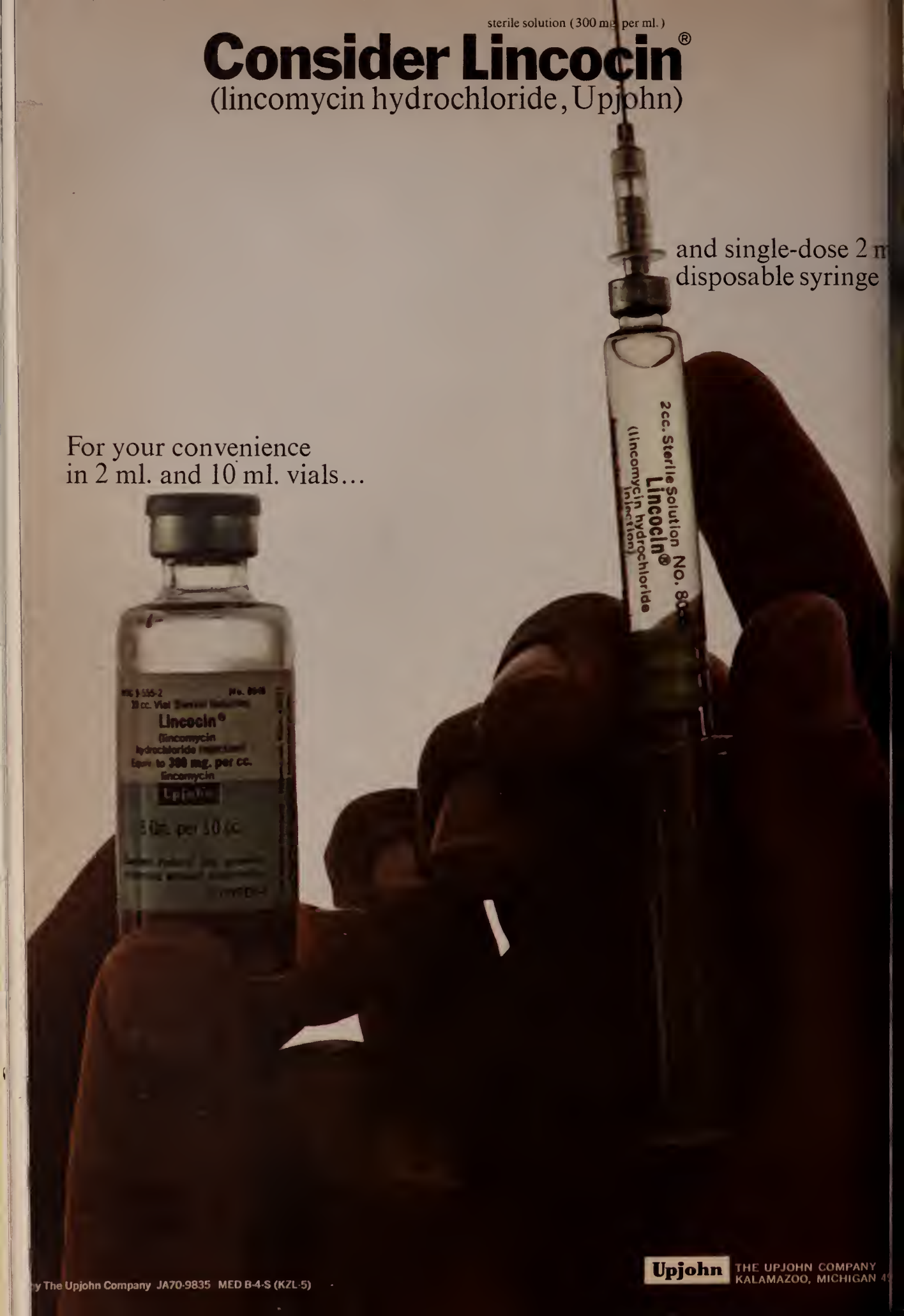
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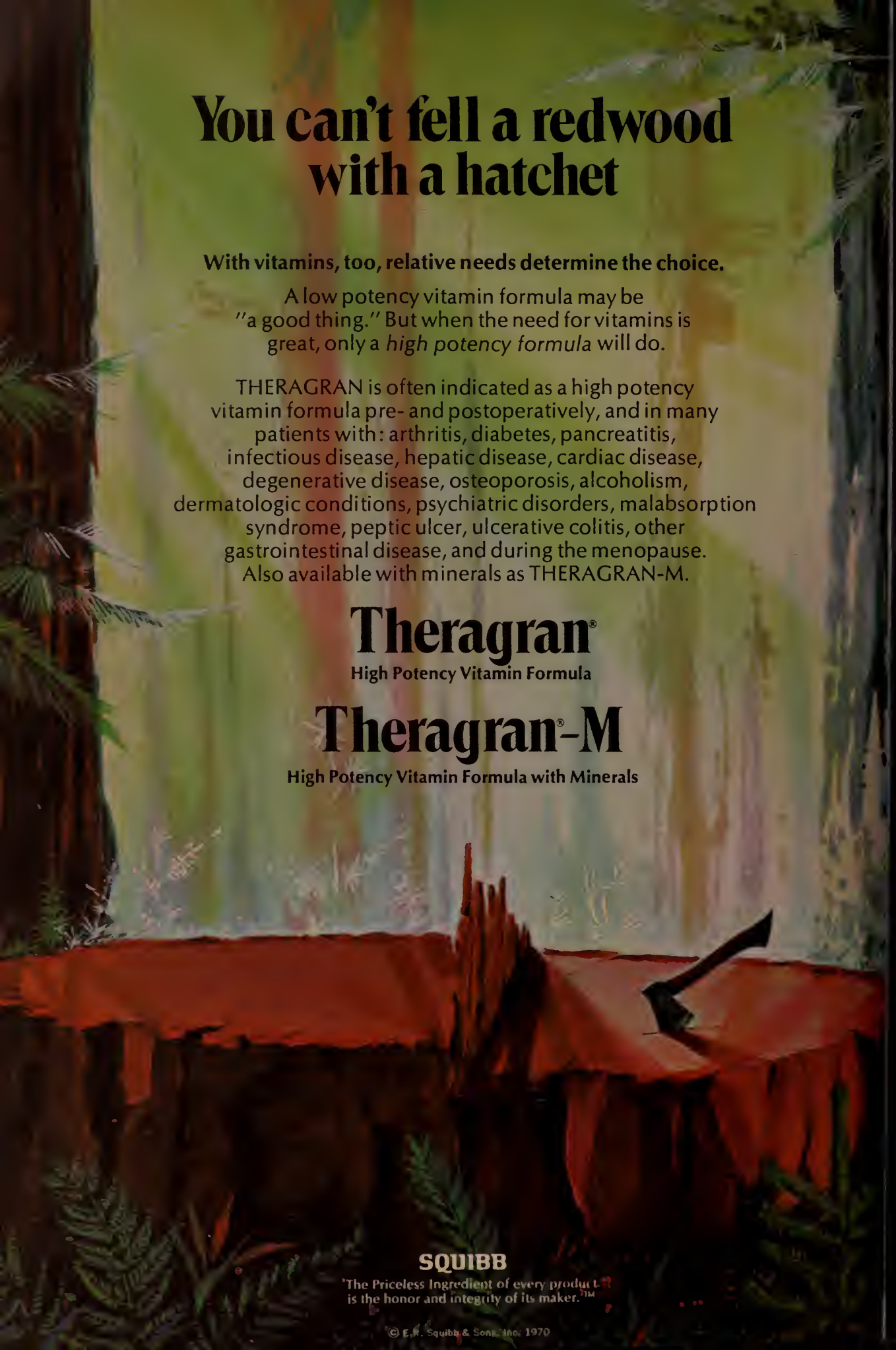
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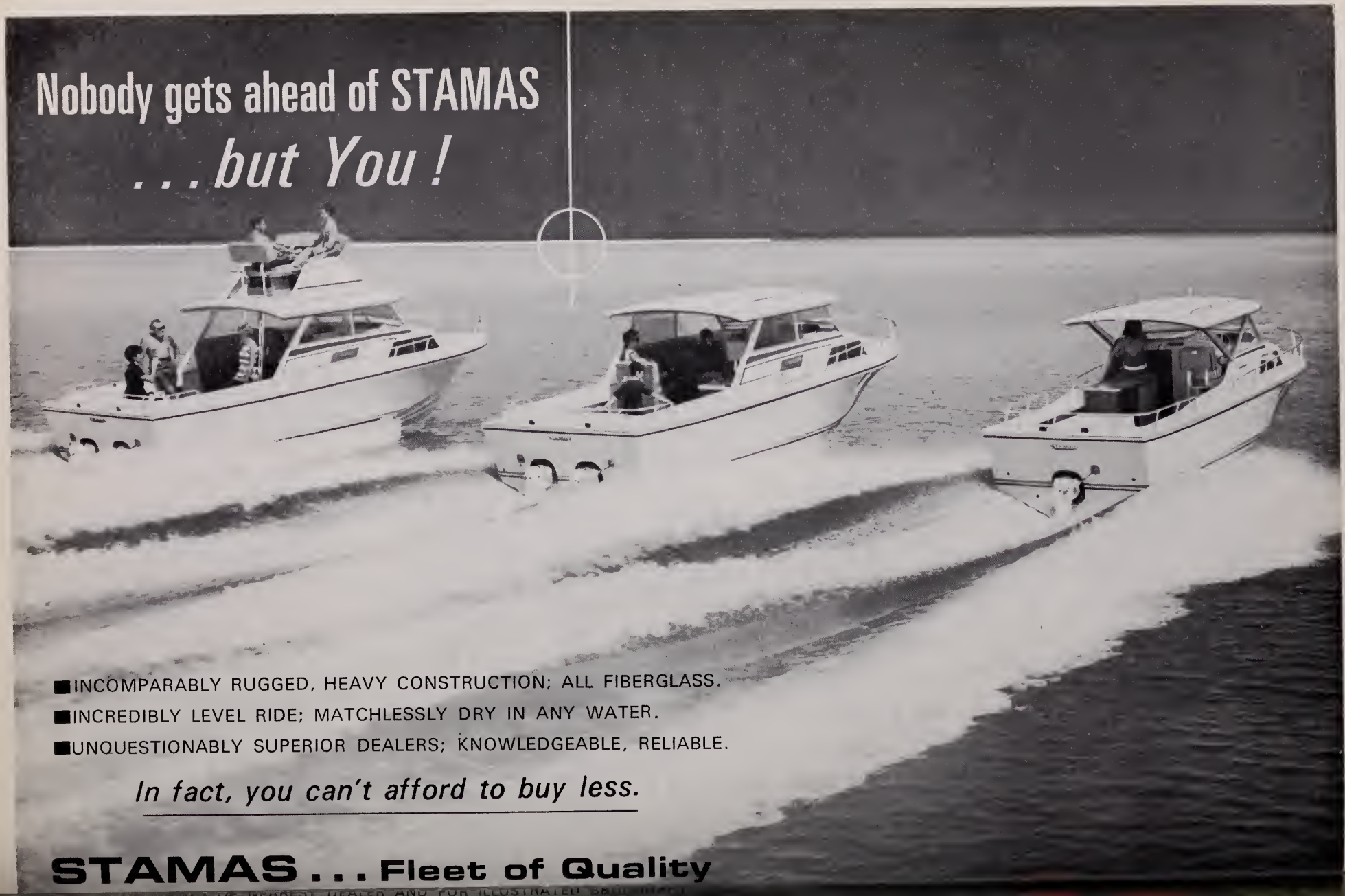
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Editorial

Drug Abuse

Why do young people use drugs? There is no one single cause, for varying social forces merging, have given to drug-taking a certain absurd logic for many youths. The kids want their own life style and more often from curiosity—to find out what all the marijuana fuss is about, they try it, and then some go on to LSD or heroin. In the ghetto, drugs are used to escape a world of tenements, brutal streets and dead end jobs, and those living such desperately hopeless lives there obtain temporary escape. For each patient there will be a different reason for drug abuse. Undoubtedly the majority of our children are not using drugs and the problem may not be near the proportion we are led to believe; nevertheless, law enforcement agencies, the lay press and medical literature record increasing incidence of drug-related morbidity, mortality and personal assaults.

Heroin, chemically derived from opium which oozes from the poppy blooming in profusion in Turkey, is grown as a legal product there. How the brownish seepage gets from a farm in Turkey to an American city street corner 4,000 miles away is well known, but seldom are the couriers or merchants in the traffic apprehended. Money changing hands buys complicity and silence multiplied by one and one-half tons of the drug making its way into the United States annually, produces a trade that amounts to more than $300,000,000 each year. The victims of this nefarious business are the junkies and hop heads who must obtain $150 a day to support their habit. So, society looks upon the drug abuser as a criminal and under our laws he is regarded as morally and criminally depraved because much of the crime, from motor vehicle manslaughter, child abuse, assault and murder can be related to these abusers. In the past decade, society has had no choice but to penalize these individuals as criminals, yet this solution has not brought the desired results. Rehabilitation is the only constructive alternative.

Authorities are keenly aware of the lack of knowledge concerning heroin addiction and believe that addicts should be recognized as patients and heroin addiction as a disease. Further they recommend that the addict, as a whole man, benefits from an intimate doctor-patient relationship with a physician's concerned attention. The physician is often confronted with hostility, distrust, dishonesty and noncooperation, but fundamental to treatment is a careful assessment of the patient's signs and symptoms. The average addict is young, poor, a highschool dropout, with an escalating criminal record and a life style patterned after his life history which has been totally impoverished without any meaningful positive influence either socially, culturally, economically or environmentally. Because of the elevation in pain threshold fundamental to heroin addiction, the patient may be unaware of or oblivious to what would normally cause the most excruciating pain so that the initial presentation of acute appendicitis may be septic shock secondary to a ruptured appendix. Increasing mortality among addicts may be partially attributed to medical catastrophies that should have been prevented.

Heroin addiction is an exceedingly complex medical entity. Treating the whole man must include more than just the initial treatment of an overdose, for the plight of the successfully detoxified addict attempting to return to society is pitiful. Where does he go? The same society he ran from is still there. He needs a job, money and a place to live; but first, he must regain the confidence and self-esteem he needs simply to pursue these necessities. Any therapeutic approach to heroin addiction must recognize its etiology as complex and invulnerable to conventional therapy.

For example, what drug can be used to erase or redirect the universal sexual deviancy among addicts? Drugs produce vicarious fulfillment of an inadequate sex life and addiction begins with a psychological ego inadequacy which drives the addict to drugs and drug overdose.

The family doctor is the best source of treatment. The psychiatrist may not have the time and the patient may not have the money. Local clinics and social agencies are likely to be already overloaded. If the physician is really concerned, he should not sell himself short for if he has had a previous good relationship with some one who becomes an addict he is accepted as one who cares. Physicians should attempt to understand what it means to be an addict, his hopelessness, his despair and his sense of worthlessness and so to become more aware of the phobias and fears addiction entails.

Some authorities think the drug problem is a media panic and the majority of the kids are not using drugs. Needed, nevertheless, are more educational programs for our youth, their parents, the practicing physician and volunteer paramedical personnel plus coordination and cooperation on local and national levels involving all community agents. This should be done to measure the problem precisely and determine an adequate solution, for our goal is to return each drug abuser to society as a contributing member.

Alcoholism is America's other drug problem, for in recent years, it is attested that 68% of adult Americans drink and 12% drink excessively. Because of the publicity and press releases given by daily newspapers and state and federal governments to drug abuse, the alcoholic, though shoved into the background, is still around and won't go away. The stigma of alcoholism may be lessening and hopefully the medical attitude toward alcoholism is changing as alcohol is considered a drug, and dependence on it is a form of addiction. Interest in the alcoholic is increasing in all fields of medicine, probably due to the fact that research is identifying more and more alcohol-related diseases. Included among peptic ulcer and gastrointestinal hemorrhage are carcinoma of the esophagus, pancreas and prostate, cirrhosis, asthma, diabetes, neuritis, gout, cerebrovascular and heart disease and tuberculosis.

Looking through a 1967 issue of the Journal while waiting for a phone call in the library of a local hospital, I ran across a warm, humanistic, practical approach to the treatment of the alcoholic. Being sensitive to ever continuing criticisms that our profession has abandoned this category of patients, I wrote the author and asked if he had revised his philosophy, his treatment or his practice load. His immediate reply was a progress report of his activities and it was so inspiring that I resolved that it be published in the Journal. About the same time, we received a paper on hepatitis among addicts and a third on some of the complications occurring in the treatment of addicts. This prompted me to write Dr. Robert P. Johnson, Chairman of the FMA Ad Hoc Committee on Drug Abuse, along with members of his committee to solicit other papers. Everyone approached has come through with interesting and factual remarks so we, on the staff, wanted to forward it all to the practicing physicians. Having read that drugs, children and statistics are abused by people who do not understand them, this special issue, with the help of all the dedicated contributors, is published in the hopes of eradicating some of that abuse.

C.M.C.

In Boston last December, a reference committee to the AMA House of Delegates recommended that organized medicine establish a policy that marijuana is a dangerous drug and oppose the relaxation of laws controlling the smuggling or sale of the drug or its legalization. After hearings, pro and con, it recommended further study and evaluation of the active ingredients of LSD be continued and the findings reported in an appropriate manner. Another resolution directed the House to urge local medical societies, schools and other interest groups to coordinate their efforts in the area of drug abuse education and to evaluate the scientific credibility of the sources of background information and the competence of instructors to assure effective programs in each community. For clarification, the reference committee recommended the following change: That the AMA cooperate with the many organizations, agencies and individuals concerned with solving the problem of drug abuse by encouraging the development of coordinated comprehensive educational programs in each community.

General News

Guidelines for Handling Drug Problems

Florida educators will be provided with guidelines for handling drug problems in their schools.

FMA's Ad Hoc Committee on Drug Abuse decided to prepare the guide for teachers at its meeting in Ft. Lauderdale on January 27. A subcommittee was named to work on the project, consisting of Mr. Lou Morelli, Florida Department of Education; David J. Lehman Jr., M.D., FMA representative; Mr. Willis Booth of the Florida Division of Law Enforcement, and Dr. Robert J. Pearson, Florida Education Association.

The Committee favors repeal of Section 398.09, Florida Statutes, relating to exempt narcotic preparations and recommending that a first offense of possessing marijuana in an amount of five grams or less be made a misdemeanor rather then a felony. This change would bring the Florida law into conformity with federal code.

In other actions, the Committee endorsed publication of a drug abuse desk reference for physicians; recommended implementation of a triplicate prescription program for Class A narcotics, and decided to request space for an educational exhibit at the FMA Annual Meeting.

Florida Joint Commission on Medical Education

The organizational meeting of the Florida Joint Commission on Medical Education was held in Orlando on January 31, with the chairman, Henry R. Cooper, M.D., of Ft. Lauderdale, presiding.

Kenneth E. Penrod, Ph.D., Vice Chancellor of the Florida Board of Regents, reviewed a legislative directive for the development of family practice programs at Florida medical schools. Representatives of each school reported on their progress in fulfilling this directive.

The University of Florida has established a Department of Community Health and Family Practice. The family medicine program is being operated through the Dean's Office at the University of Miami; and the University of South Florida is helping start a family practice residency at the Bayfront Medical Center in St. Petersburg.

The Commission agreed that these differences in approach toward obtaining similar objectives are desirable.

In another area of medical education, the Commission felt that caution should be exercised in establishing training programs for physician's assistants until the medical profession adopts adequate guidelines.

The Commission was brought up to date on the program to expand the number of medical students and was informed that the undergraduate programs at Florida State and A & M Universities are operational.

Orthopaedic Surgeons Postgraduate Course

Three Florida physicians, William F. Enneking, M.D., of Gainesville; Newton C. McCollough III, M.D., Miami, and J. Darrell Shea, M.D., Miami, will be members of the guest faculty for a postgraduate course to be sponsored by the American Academy of Orthopaedic Surgeons in Nashville, Tennessee, May 6-8.

The sessions will be open to other interested physicians. Additional information may be obtained from the American Academy of Orthopaedic Surgeons, 430 North Michigan Avenue, Chicago 60611.

Greater Miami Pediatric Society

The Greater Miami Pediatric Society seminar will be held May 12-13 at Jackson Memorial Hospital, Miami. Speakers will be Drs. Hardy Hendren, Allan Goldblatt and Daniel Shannon from Massachusetts General Hospital. For further information: Gimel Ortega, M.D., 409 Huntington Building, Miami, Florida 33131.

Dr. Polk Wins First Award at SMA

A Florida physician won First Award in the scientific exhibits during the 64th Annual Meeting of the Southern Medical Association which was held in Dallas, Texas. The distinction was earned by Hiram C. Polk Jr., M.D., for his exhibit on "Postoperative Wound Infection: The Role of Systemic Antibiotics."

Dr. Polk is affiliated with the University of Miami School of Medicine.

Joins Staff of FRMP

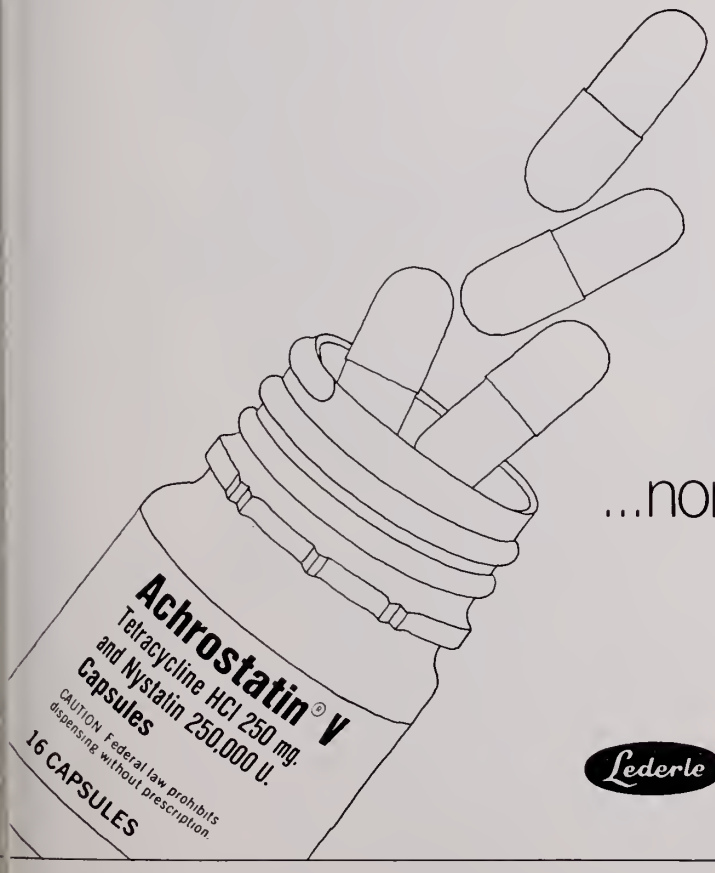
A Columbia University professor has joined the staff of the Florida Regional Medical Program and the University of South Florida School of Medicine.

Herman E. Hilleboe, M.D., who most recently was Professor of Public Health Practice at Columbia, became the FRMP, Inc., representative at the University of South Florida, where he will also serve as Clinical Professor of Comprehensive Medicine.

Dr. Hilleboe's appointment was announced by Dean Donn L. Smith of the USF Medical School and Granville W. Larimore, M.D., Director of FRMP.

1971 American Industrial Health Conference

The American Industrial Health Conference meets in Atlanta, Georgia, April 19-22. This is a combination of the national meetings of the Industrial Medical Association and the American Association of Industrial Nurses. The meeting will be held in the Marriott Hotel, Atlanta and the registration fee is $10.



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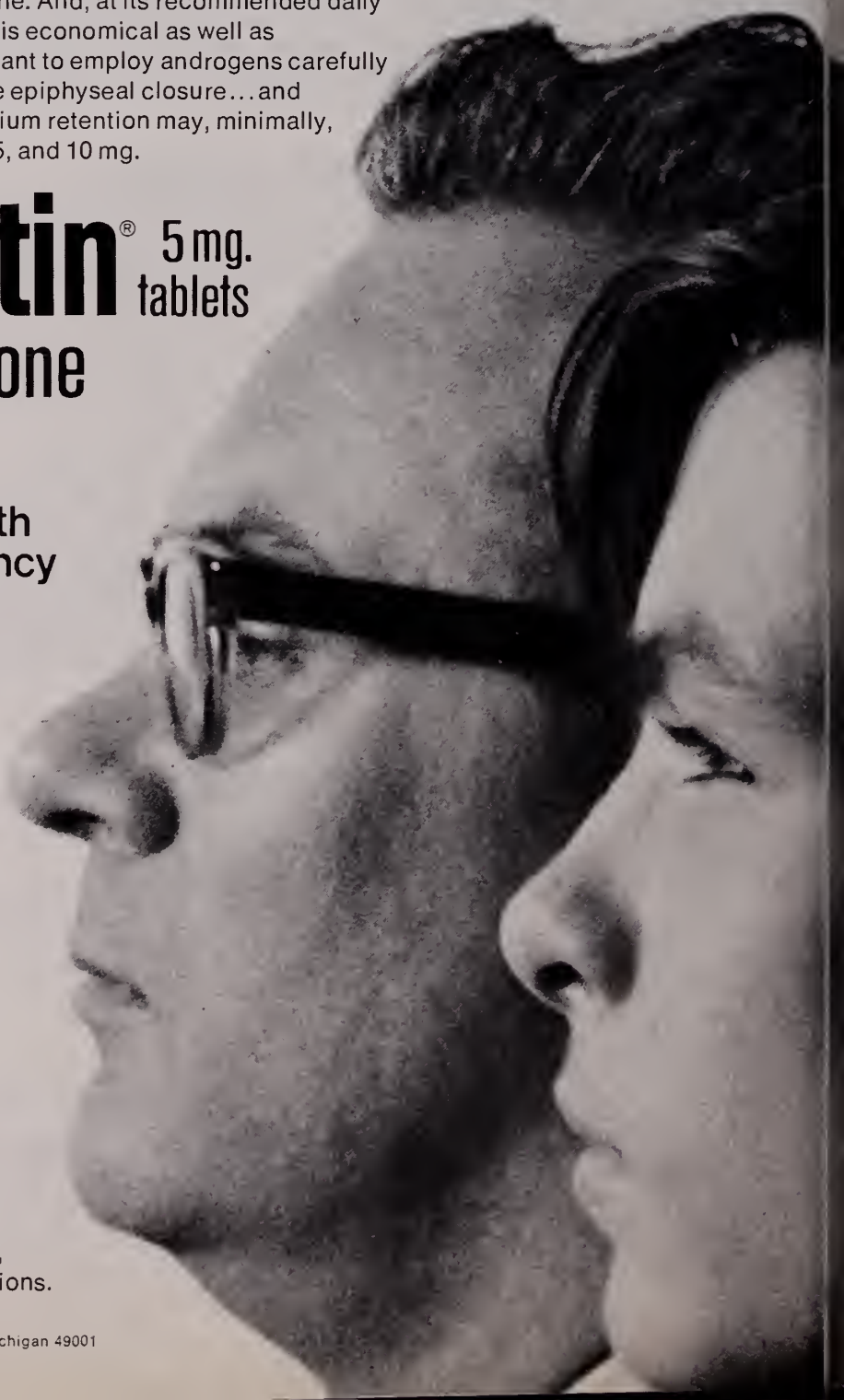
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lly active androgen about 5 times as potent nabolic and androgenic activity as methyltes- derone. Halotestin (fluoxymesterone) induces nificant retention of calcium and potassium, retention of sodium not marked. Doses below mg. daily have little effect in producing atinuria.

cations *Male:* Replacement therapy in tes- ar hormone deficiency states. Prevents atro- of the accessory male sex organs following ration for as long as therapy is continued. otence and male climacteric symptoms when to androgen deficiency. Primary eunuchoid- and eunuchism. Delayed puberty when es- shed as not a simple familial trait. Indicated those symptoms of panhypopituitarism re- d to hypogonadism, however, appropriate enal cortical and thyroid hormone replace- t therapy remain of primary importance. *ale:* Palliation of androgen-responsive, ad- ed, inoperable breast cancer in women be- n 1 and 5 years postmenopausal or women hom castration has shown the tumor to be one dependent. Prevention of postpartum st manifestations of pain and engorgement; is no satisfactory evidence that this drug ents or suppresses lactation per se. In os- orosis androgens may be of adjunctive e to adequate considerations of diet, cal- balance, physiotherapy and general health noting measures. *Males and Females:* In the ment of protein depletion states which oc- n geriatric patients, in debilitation states, in nic corticoid therapy, resistant fractures; torchidism; creating a positive nitrogen bal- , tissue repair and other anabolic effects. rogenic steroids may produce a response in stic anemias, myelofibrosis, myelosclerosis, genic myeloid metaplasia and hypoplastic nias due to malignancy or myelotoxic drugs. rogens are not of value in other anemias.

traindications Pregnancy (may virilize fe- fetus), mammary carcinoma in the male, tatic carcinoma, severe liver disease, severe iorenal disease and severe persistent hy- alcemia.

cautions Employ with caution in young boys void precocious sexual development and nature epiphyseal closure. Androgens tend omote retention of sodium and water, there- watch for edema—particularly in the elderly. dence and severity of edema have been mal and have been associated only with doses used for palliation of breast cancer. ercalcemia may occur, particularly in patients metastatic breast carcinoma; if this occurs drug should be discontinued. Changes in function tests, such as increased BSP re- on and SGOT levels, can occur during ther- Jaundice has been rarely reported. If liver tion tests are altered, discontinue medica- or reduce dose. Priapism is indicative of ssive dosage and is indication for tempo- withdrawal of drug. When treating protein etion states or osteoporosis, an adequate should be provided and prolonged immobili- n avoided whenever possible. When treating stic or hypoplastic anemias, androgen ther- should not replace other measure such as fusion, correction of iron deficiency, anti- erial therapy, and the use of corticosteroids.

erse reactions Nausea, dyspepsia, men- l irregularities, hepatic dysfunction, pria- , edema, precocious sexual development, premature epiphyseal closure in young nts have been reported. *Male*—Prolonged nistration or excessive dose may cause ition of testicular function with oligospermia decreased ejaculation volume. *Female*— e doses or prolonged administration may uce masculinization with signs such as hir- m, deepening of the voice, enlargement of clitoris, acne, and sometimes, increased o.

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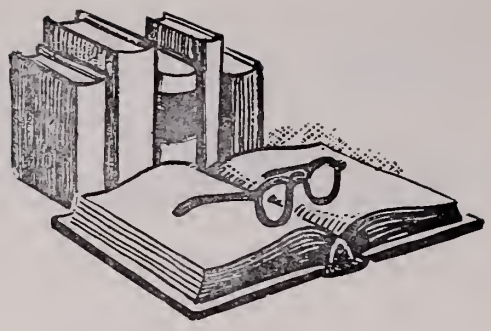
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BOOKS

The Immunology of Malignant Disease by Jules E. Harris, M.D. and Joseph G. Sinkovics, M.D. Pp. 251. Illustrated. Price $15. St. Louis, The C. V. Mosby Company, 1970.

Seldom has a medical field been abandoned and then reclaimed with such fervor and enthusiasm as in the case of tumor immunology. Initial interests in the 1920's waned and reviews of this subject in the fifties were generally dismal. However since the advent of newer methods of measuring antibodies in the serum and detecting cellular immune responses, there has been a resurgence of scientific interest in cancer immunology. This rapidly growing field is well reviewed in "The Immunology of Malignant Disease." This comparatively short book summarizes recent advances in tumor immunology rather well.

The first chapter briefly reviews tumor antibodies and goes into fair detail in the section on cellular immunity. The significant achievements concerning the role of the thymus gland are well reviewed and set into the prospective of the monograph. Other immunologic reactions are mentioned such as tolerance, deviation and enhancement. The latter is well described and is one of the major hurdles tumor immunotherapy must overcome. The authors correctly point out that if enhancement occurs, a paradoxical increase in tumor growth may result; therefore, caution is required in the treatment of tumors with immune serums. The second chapter takes the reader easily through a maze of tumor viruses and experimental immunology in animals. The lack of immunity in malignant disease is covered in the third chapter with some clinical methods of treatment suggested for immune deficient states in leukemia, lymphemia, myeloma, etc.

Suppression of the immune response which is clinically quite important in transplantation and auto immune diseases is summarized in chapter four. The concluding chapter attempts to briefly review theories of etiology of malignancy. This chapter also mentions some of the results of immunotherapy concerning tumors such as melanoma, choriocarcinoma, Burkett's tumor and others.

In their summary the authors state that "Only the approach that rests on basic studies beyond the clinical observations will lead to the practical application of useful procedures of immunotherapy." This is the essence of this monograph. The basic research areas are well reviewed with much information presented accurately and succinctly; however, the clinical application is not as compacted perhaps because of the relative paucity of good controlled studies and the obvious contraindication of man as an experimental host for tumors. To fully comprehend the first two chapters one should be versed in the language of the immunologist. The last three chapters will prove easier reading for the clinician dealing with hematologic and other malignancies. This book is a laudable effort in summarizing and presenting the basic and clinical material on the current status of cancer immunology.

Ira Finegold, M.D.
Hollywood

PLEASE TAKE A MOMENT TO FILL OUT THE QUESTIONNAIRE ON PAGE 32a AND HELP US IMPROVE YOUR JOURNAL. POSTAGE IS PREPAID.

Receipt of the following books is acknowledged. While time and space will not permit review of all books received, medical readers interested in reviewing particular books are invited to address requests to the Editor. Following acceptance of a written review for publication, a reviewer may then retain the book reviewed for his personal or favorite library.—Ed.

The Adolescent Patient by William A. Daniel Jr., M.D. Pp. 444. 76 illustrations. Price $20.50. St. Louis, The C. V. Mosby Company, 1970.

Spectroscopic Approaches to Biomolecular Conformation edited by D. W. Urry. Pp. 314. Illustrated. Price $15.00. Chicago, American Medical Association, 1970.

Urological Surgery. 4th Ed. by Austin Ingram Dodson Jr., M.D. Pp. 617. Price $32.50. 694 illustrations. St. Louis, The C. V. Mosby Company, 1970.

The Early Orthopaedic Surgeons of America by Alfred Rives Shands Jr., M.D. Pp. 190. Illustrated. Price $15. St. Louis, The C. V. Mosby Company, 1970.

Infection Control in the Hospital by the American Hospital Association. Pp. 154. Price $4. Chicago, Illinois 1970.

Macular Diseases by J. Donald M. Gass, M.D. Pp. 232. Illustrated. Price $48.50. St. Louis, The C. V. Mosby Company, 1970.

Selective Bibliography of Orthopaedic Surgery. 2nd Ed. By the American Academy of Orthopaedic Surgery. Price $7.25. St. Louis, The C. V. Mosby Company, 1970.

Biological Rhythms in Psychiatry and Medicine by Gay Gaer Luce. Pp. 183. Price $1.75. Washington, D. C., U.S. Government Printing Office, 1970.

DOCTOR, MARK THESE

DATES ON YOUR CALENDAR:

MAY 5-9, 1971

Ninety-Seventh

Annual Meeting

FLORIDA

MEDICAL

ASSOCIATION

AMERICANA HOTEL

BAL HARBOUR

MIAMI BEACH

ORGANIZATION

97th Annual Meeting Highlights

A record attendance is anticipated for the 97th Annual Meeting of the Florida Medical Association at the Hotel Americana in Bal Harbour, May 5-9.

Approximately 1,300 physicians and 1,000 other guests are expected for the meeting, which will include scientific sessions, meetings of the House of Delegates, 27 FMA recognized specialty groups, and various other activities.

Highlights of the House sessions will include the presidential address of Dr. James T. Cook at the first session of the House of Delegates on Wednesday afternoon, May 5. Dr. Floyd K. Hurt of Jacksonville will succeed Dr. Cook, of Marianna, as president of the 7,200-member FMA. The installation of Dr. Hurt and the election of other officers to serve during the coming year will take place during the third and final session of the policy-making House of Delegates on Sunday morning, May 9, the final day of the convention.

An outstanding personality has been invited to present this year's Baldwin Lecture before a general session Friday morning, May 7; however, confirmation of the speaker had not been made as this issue of the Journal went to press.

Sen. Barry Goldwater of Arizona, the Republican presidential nominee in 1964, will be the guest speaker for a Friday afternoon luncheon sponsored jointly by the Woman's Auxiliary to the Florida Medical Association and the Florida Medical Political Action Committee (FLAMPAC).

The three sessions of the House of Delegates are scheduled for Wednesday at 4 P.M., Saturday at 3 P.M., and Sunday at 9 A.M. Membership in the House will be reduced from last year's 305 to 205 because of an adjustment in the ratio of one delegate for every 25 members per component society to one per 40 members.

The first session of the House is the only official activity on the agenda for convention opening day.

The annual Blue Shield meeting will be Thursday morning, May 6, beginning at 8 A.M. This will be followed by meetings of the five reference committees designated to study resolutions and other business and to report back to the House.

Reference Committee I will study matters pertaining to health and education. Other reference committee subject areas include: Reference Committee II, Public Policy; Reference Committee III, Finance and Administration; Reference Committee IV, Legislation and Miscellaneous, and Reference Committee V, Medical Economics.

Thursday afternoon will see the beginning of the scientific program and additional reference committee meetings, if necessary.

Scientific sessions will continue in the forenoon and afternoon of both Friday and Saturday. Many interesting technical and scientific exhibits will be available for visitation by physicians and their guests throughout the meeting.

The FMA Committee on Scientific Assemblies, chaired by Dr. David J. Becker of Miami, arranged the scientific program in cooperation with the various specialty groups. Names of speakers and their topics will be listed in the official program of the convention.

One of the social highlights of the meeting will be the President's reception on Friday evening. Admission will be by ticket, which will be available at $2.00 each at the registration desk.

Other receptions and social gatherings of alumni, fraternity and specialty groups will be held Friday and Saturday nights.

This year, for the first time, FMA will elect a sixth member and an alternate to the American Medical Association House of Delegates. FMA became eligible for the additional delegate when the state's membership in AMA reached 5,000.

Sporting tournaments have been arranged for the diversion of physicians attending the meeting. Dr. Carl Balli will be Chairman of the golf tournament, and Dr. Hobart Feldman is in charge of arrangements for the fishing tournament.

In addition, there will be a tennis tournament. Information about all three events may be obtained by contacting: Dade County Medical Association, 2 Southeast Thirteenth Street, Miami, Fla. 33131, telephone (305) 371-2601.

The registration desk for the annual meeting will be open at 10 A.M. on Wednesday and at 8:30 A.M. on other days during the convention.

Additional information about the 97th Annual Meeting may be obtained by writing to: Mr. W. Harold Parham, Executive Vice President, Florida Medical Association, P. O. Box 2411, Jacksonville, Fla.

Schedule Of Activities

FLORIDA MEDICAL ASSOCIATION ANNUAL MEETING

Americana Hotel, Bal Harbour (Miami Beach), May 5-9, 1971

WEDNESDAY, MAY 5

10:00 a.m.	General Registration and Delegates Registration, Foyer, Grand Ballroom
2:00 p.m.	Delegates Registration, Medallion Room
4:00 p.m.	First House of Delegates, Bal Masque

THURSDAY, MAY 6

8:00 a.m.	Blue Shield Annual Meeting, Bal Masque
8:30 a.m.	Exhibits Open Daily until 4:30 p.m., Grand Ballroom
9:30 a.m.	Reference Committee No. I, Ballroom A
	Reference Committee No. V, Westward Rooms 2 and 5
10:00 a.m.	Reference Committee No. II, Ballroom B
	Reference Committee No. IV, Ballroom C
10:30 a.m.	Reference Committee No. III, Eastward Room
2:00 p.m.	FMA Scientific Sections, Ballroom A, B, C

FRIDAY, MAY 7

9:00 a.m.	FMA Scientific Sections, Ballroom A, B, C
11:00 a.m.	General Session (Baldwin Lecture), Bal Masque
12:15 p.m.	Woman's Auxiliary and FLAMPAC Luncheon, Medallion Bal Masque
2:30 p.m.	FMA Scientific Sections, Ballroom A, B, C
6:30 p.m.	President's Reception, Poolside (Alternate), Floridian Room
7:30 p.m.	Alumni and Fraternity Socials (See official program)

SATURDAY, MAY 8

9:00 a.m.	FMA Scientific Sections, Ballroom A, B, C, Medallion Bal Masque
All day	Specialty Group Meetings (See official program)
1:00 p.m.	Delegates Registration, Medallion Room
3:00 p.m.	Second House of Delegates, Bal Masque
Evening	Specialty Group Socials (See official program)

SUNDAY, MAY 9

7:30 a.m.	Delegates Registration, Medallion Room
9:00 a.m.	Third House of Delegates, Bal Masque

VISIT EXHIBITS 8:30 A.M.-4:30 P.M. DAILY

1971
FLORIDA MEDICAL ASSOCIATION
NINETY-SEVENTH ANNUAL MEETING
Americana Hotel, Bal Harbour, Florida
May 5-9, 1971

	May 5 Wednesday	May 6 Thursday	May 7 Friday	May 8 Saturday	May 9 Sunday
A. M.	Set Up EXHIBITS 10:00 General and Delegates Registration	8:00 Blue Shield Annual Mtg. 9:30 Ref. Comm. Nos. V & I 10:00 Ref. Comm. Nos. IV & II 10:30 Ref. Comm. No. III VISIT EXHIBITS	9:00 to 10:45 Scientific Sections and Specialty Groups VISIT EXHIBITS 11:00 General Session (Baldwin Lecture)	9:00 Specialty Groups and Scientific Sessions VISIT EXHIBITS	9:00 Third House of Delegates
P. M.	4:00 to 5:30 First House of Delegates	2:00 to 5:00 Scientific Sections (Reference Committees, if necessary)	12:15 to 2:00 Aux. & Flampac Luncheon 2:30 to 5:00 Scientific Sections and Specialty Groups	1:00 to 2:45 Specialty Groups 3:00 Second House of Delegates	Post-Convention Board of Governors
Evening			6:30 President's Reception 7:30 Alumni & Fraternity Socials	Dismantle Exhibits Specialty Group Socials	

1971 Legislative Session

Sanford A. Mullen, M.D.

The 1971 legislative session begins April 6 and your Committee on State Legislation has prepared the Florida Medical Association Legislative Package for consideration during the 60-day session. Priority emphasis in the 11 point program, approved by the House of Delegates and Board of Governors, is upon changes in the law to bring about relief in the area of professional liability as medical malpractice insurance.

Proposed modifications in this law include: Reduction in Statute of Limitations.—Defense attorneys and insurance company representatives maintain that a reduction in the present statute of limitations from four to two years will favorably affect the skyrocketing professional liability insurance rates. The bill, as drafted by Florida Medical Association legal counsel, would not interfere with rules of discovery as now interpreted by the courts. It simply reduces from four to two years the time allowed a plaintiff to file a professional liability action after the date of discovery. Passage would lower substantially the amount of reserves that must be maintained by the insurance companies.

Advance Payment to Plaintiffs Without Admission of Liability.—This concept is part of the overall package proposed by the American Medical Association.

Provided the courts at a later date do not construe the action as an admission of liability, the number of suits may be reduced if advance payments or other considerations are made to potential plaintiffs at the time a complaint is initially received. Many times rapport can be developed with a potential plaintiff that preempts the ultimate hiring of an attorney to represent him in future court action.

Other major proposals in the Florida Medical Association legislative program include:

Abortion Reform

The Florida Medical Association's opinion is that Florida's abortion law should be reformed since pending Supreme Court actions may render the present law unconstitutional. In this event there would be no guidelines in this very critical area.

The policy adopted by the House of Delegates at the 1970 meeting states:

"The Florida Medical Association believes that the liberalization of the abortion law in the State of Florida should be passed . . . With this in mind, the following recommendations are made:

"1. An abortion may be performed to protect the life or the health of the mother, health of the mother to include physical or mental health.

"2. An abortion should be allowed when there is a reasonable medical certainty that the pregnancy would result in a defective child.

"3. Abortion should be allowed following rape, statutory or forceful, and incest.

"4. Consideration should be given to establishing a residency requirement of three months."

Chiropractic

Again this session the chiropractors plan extensive efforts to pass the mandatory chiropractic insurance coverage bill which would also include them in the Medicaid program. The Committee on State Legislation will do all it can to make certain the legislators understand the detrimental effect of such legislation upon the health care of the people of Florida.

Medical Licensure

There is a great deal of legislative interest in establishing some form of limited reciprocity or licensure by endorsement in Florida. The theory is that this would help alleviate the problem of physician shortage. The Board of Medical Examiners states that by 1972 the desired national ratio of one practicing physician to each 800 persons will have been reached. The problem, according to the Board, is not numbers but rather very serious maldistribution of physician population, both as to location and specialty.

Physician's Assistants

There is also a great deal of legislative interest in the use of physician's assistants as a means of alleviating the health manpower shortage. The Florida Medical Association supports the use of assistants. There are questions regarding the practical implementation of such a program; therefore, caution is suggested in moving ahead. Any legislative activity should give full authority to the Board of Medical Examiners to determine how and at what speed the physician's assistants program should be implemented.

Dr. Mullen is Chairman of the Committee on State Legislation, Florida Medical Association.

Other Legislative Proposals

Additional proposals which may be introduced as the session progresses include prohibition of the use of the doctrine of *res ipsa loquitur;* the practice of requiring a physician to testify against himself as an expert witness; use of out-of-state witnesses, and legislation to clarify use of informed consent.

Doctor of the Day

The Florida Medical Association's capitol office is firming up the schedule for Doctor of the Day for the legislative session April 6 through June 4. This program provides a very valuable health care service to legislators and their employees and has proved an excellent means to develop better physician relations with key people in state government. The Florida Medical Association provides quarters at the Quality Court Motel in Tallahassee for the physician and his family the night prior to his day of service in the capitol dispensary. Members are requested to volunteer for this important activity.

▶ Dr. Mullen, Box 2921, Jacksonville 32203.

Committee on Postgraduate Education

The Committee on Postgraduate Education met in Orlando on January 29 with the chairman, William H. Hubbard, M.D., of New Port Richey, presiding.

The committee gave further consideration to the notion of requiring members of the Florida Medical Association to participate in continuing education activities. At least one state, Oregon, requires its members to meet certain postgraduate educational requirements in order to maintain their membership in the state society, and some other states are known to be giving consideration to this concept.

Also discussed by the committee was the possible employment of peer review as a valuable mechanism for quality control of patient care and continuing education. Committee members agreed that peer review holds considerable promise for determining the educational needs of Florida physicians.

In keeping with current medical terminology, the Committee on Postgraduate Education decided to recommend to its parent, the Council on Scientific Activities, that its name be changed to "Committee on Continuing Medical Education."

A report was presented concerning the number of physicians who qualify for the AMA's Physician Recognition Award. It was pointed out that as of January 19, 542 Florida physicians had qualified for the award, and on a national basis 14,908 doctors had done so.

Florida State Board of Medical Examiners Report

The number of licenses issued by the Florida State Board of Medical Examiners has nearly quadrupled in less than four years, according to figures compiled by the Board.

The Board conducts examinations twice a year. As a result of examinations administered in January 1967, 272 licenses were issued. This increased to 375 as a result of examinations in July 1968 and to 1,052 after the examinations of July 1970.

Principal reason for the increase in the number of physicians taking the Florida examinations and the number earning Florida licenses is the deletion of the Basic Science examination two years ago. The Board examined 280 applicants in January 1967 and 1,306 in July 1970.

The following is a breakdown on licensing figures since January 1967 with the first figure representing number of applicants examined and the figure in parenthesis indicating the number of licenses issued: January 1967—280(272); July 1967—336(335); January 1968—340(324); July 1968—396(375); January 1969—376(325); July 1969—707(626); January 1970—1,043(709); July 1970—1,306(1,052).

The Board administered more than 1,100 examinations at a session in January in Jacksonville, but the results of that examination were not available for this issue of the Journal.



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Woman's Auxiliary



Fifth Annual Benefit Art Show
Exhibit Rules and Regulations
Read Rules Carefully

1. All entries must be original work.
2. Pictures must be framed and wired for hanging. Stands will be provided for sculpture, etc.
3. Each entry must have a typed card indicating Name, Address, Medium, Dimensions and Title. Please list price if entry is for sale; otherwise, mark not for sale (NFS).
4. No more than two entries may be entered per person for each category.
5. Only one artist's name should be listed for each registration slip.
6. A registration fee of $10.00 will be charged for each entry. Entry fees are tax-deductible.
7. All registration slips and checks must be sent in together no later than April 30, 1971.
8. All pre-registered entries are to be delivered by hand to the Exhibit Hall at the Americana Hotel no later than Wednesday, May 5. Shipped entries will be refused.
9. All entries must remain on exhibition until 4:30 p.m. on Saturday, May 8.
10. We will not be held responsible for entries not picked up before 6:00 p.m. Saturday, May 8.
11. Doctors, their wives and children are eligible to enter. Entry fees will be donations to the St. Augustine Medical Museum.

Kindly enter my registration to show in the Benefit Art Show.

Fee of $_____ for_____ entries is enclosed.

I agree to abide by the rules and regulations for exhibiting material in the show.

Name _____

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City _____ County _____

I will be showing in the following categories: Please check (✓) appropriate category (categories) applying to your entry (entries).

() A Painting. Include any media in color: acrylic, oil, casein, collage, water color, pastel, etc.

() B Graphics. Include pen and ink, charcoal, photography, etc.

() C Crafts. Include sculpture, pottery, ceramics, mosaic, weaving, jewelry, etc.

() I am the son/daughter of a Florida physician. Age _____

Judges will give "Awards of Merit" and "Best in Show." An "Editor's Award" will be given and the winning entry will be used on the cover of a future issue of the FMA Journal.

A registration fee of $10.00 will be charged for each entry. Make checks payable to:

Mrs. Ronald J. Centrone, Chairman
3700 Galt Ocean Drive, Apt. #615
Fort Lauderdale, Florida 33308

REGISTRATION DEADLINE APRIL 30, 1971

Woman's Auxiliary to The Florida Medical Association, Inc.
Forty-third Annual Meeting – May 5-9, 1971
Americana Hotel, Bal Harbour (Miami Beach), Florida

DAILY SCHEDULE

WEDNESDAY, MAY 5

11:00 a.m.	Executive Committee, Luncheon Meeting, Suite of the President and President-Elect
1:30 p.m.	Pre-Convention Board Meeting, Caribbean Room
12:00-5 p.m.	Registration

THURSDAY, MAY 6

8-9:00 a.m.	Registration
9:00 a.m.	First Session, House of Delegates, Caribbean Room
12:15 p.m.	Luncheon, Medallion Room
2:30 p.m.	Second Session, House of Delegates, Caribbean Room

FRIDAY, MAY 7

9:00 a.m.	Post-Convention Board Meeting, Caribbean Room
12:15 p.m.	Auxiliary & FLAMPAC Luncheon, Bal Masque & Medallion Rooms Senator Barry Goldwater, (R.) Arizona

We plan to have two booths at the Convention. One, inside the Exhibit Hall, will tell the Auxiliary story and the other will house a "Boutique." Profits from the Boutique will go to the Florida Medical Foundation. Tennis and Golf tournaments will be held for any interested physician's wife. And of course you know about the Art Show for the St. Augustine Medical Museum.

It's a busy schedule but we plan to have a lot of fun. Could it be otherwise with such a dynamic group!

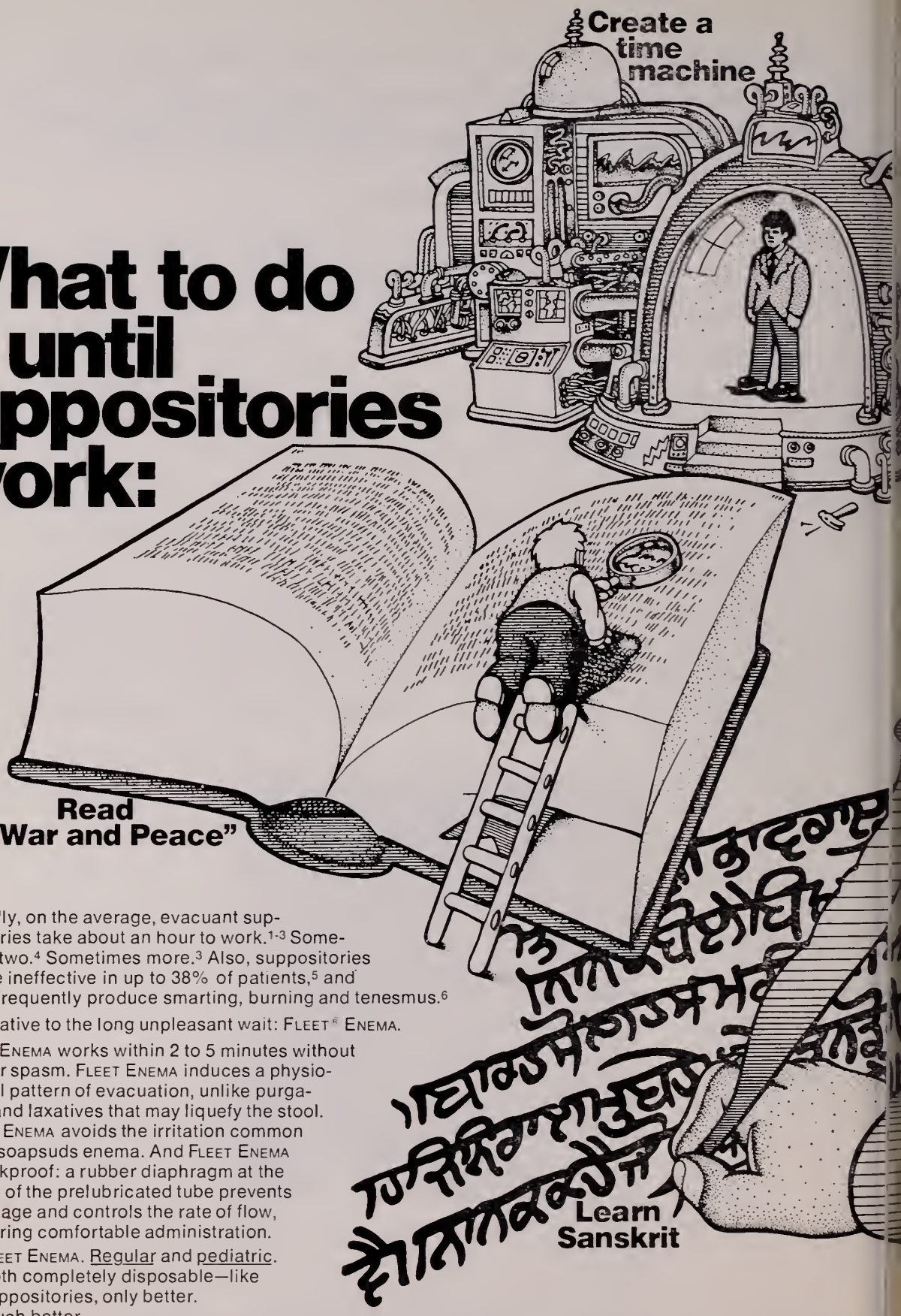


Sen. Barry Goldwater (R) Arizona, the Republican presidential nominee in 1964, will be among the guest speakers at the 1971 Annual Meeting of the Florida Medical Association at Bal Harbour, May 5-9.

Sen. Goldwater will speak at the annual Auxiliary-FLAMPAC luncheon at 1:00 p.m. on Friday, May 7.

He serves on the Senate Armed Services Committee and Senate Aeronautical and Space Sciences Committee.

What to do until suppositories work:



Actually, on the average, evacuant suppositories take about an hour to work.[1-3] Sometimes two.[4] Sometimes more.[3] Also, suppositories can be ineffective in up to 38% of patients,[5] and not infrequently produce smarting, burning and tenesmus.[6]

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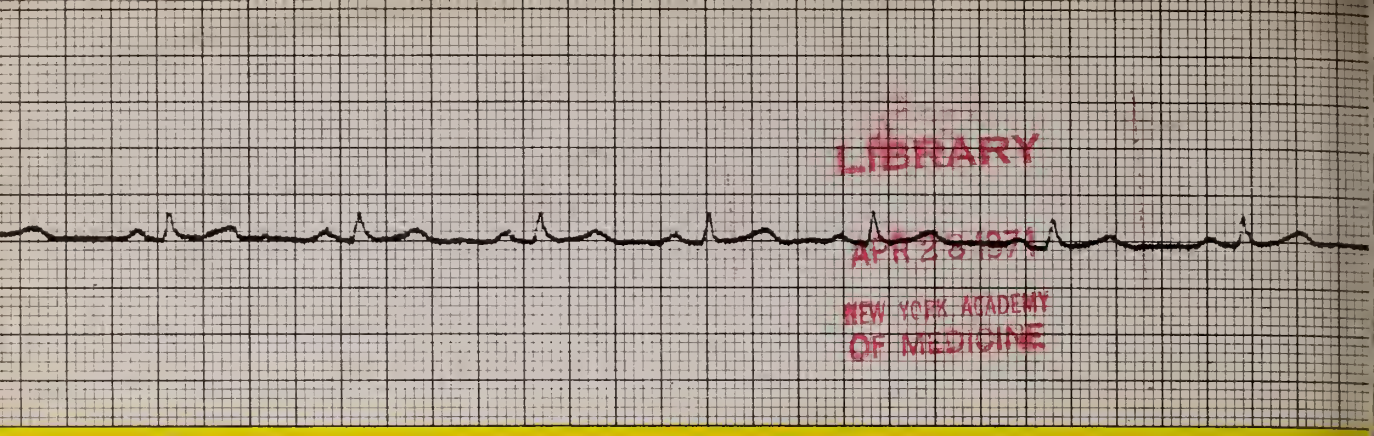
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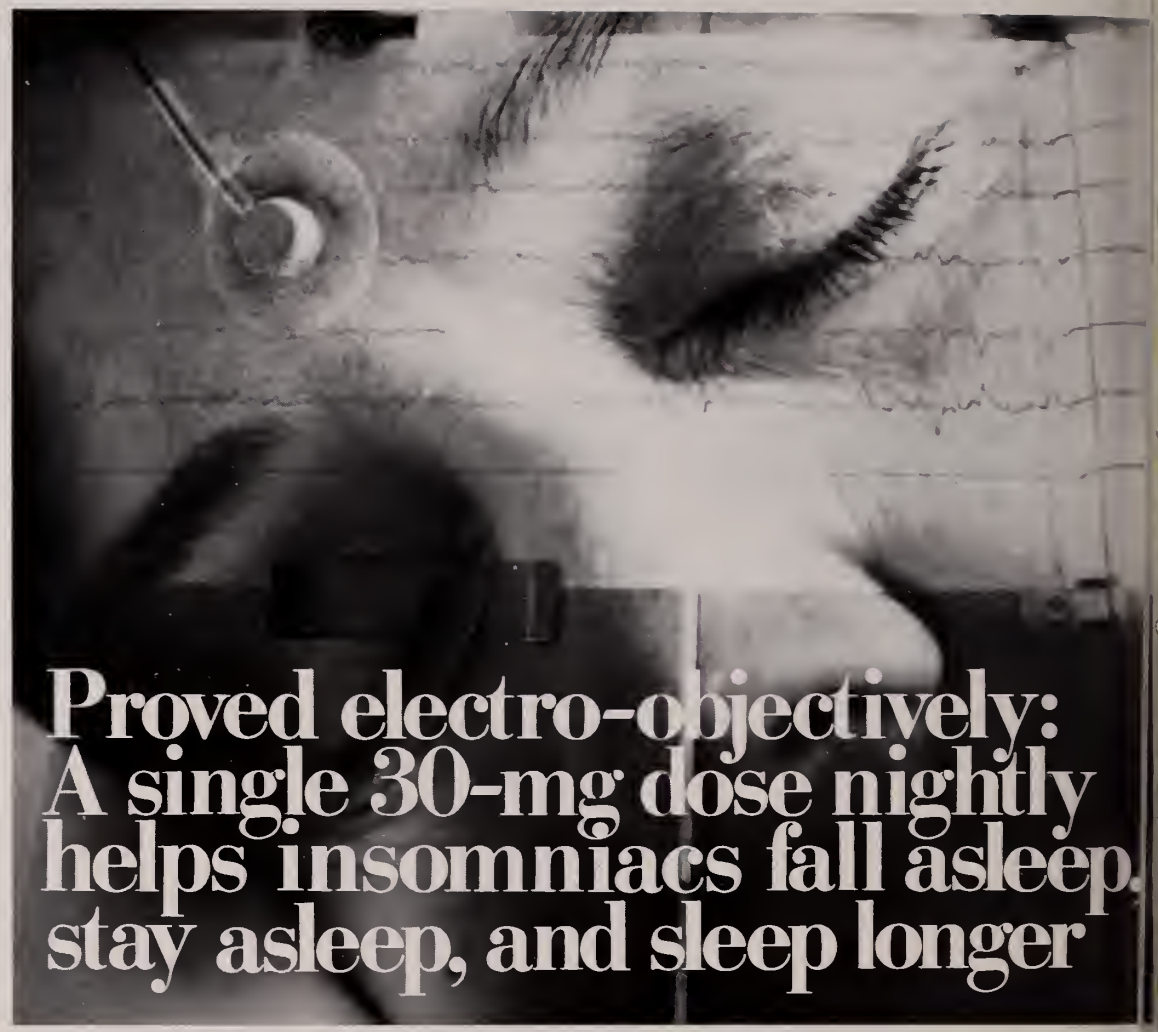
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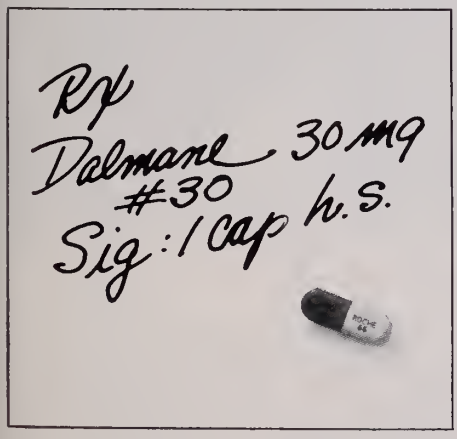
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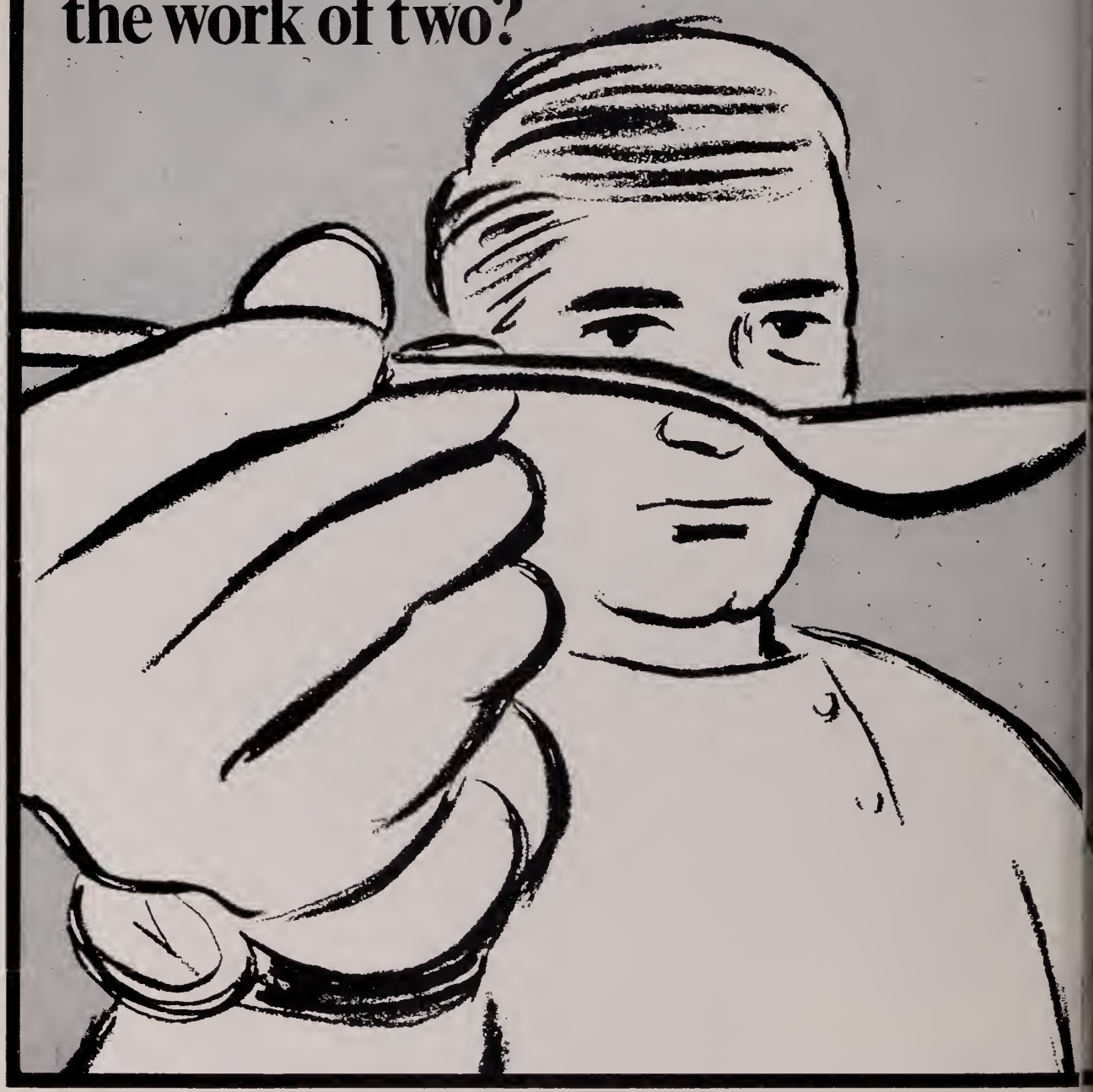
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MAY COVER—The illustration is a fetish figure from the West African art collection of Dr. and Mrs. Arlan L. Rosenbloom. The sculpture is in wood with incrustation and cowrie shells to form the eyes. It is 22 centimeters in height and comes from Cameroon. The rough-carved but imposing figure, corpulent and appearing ready to imbibe, seems an appropriate herald to a series of metabolic papers.

Can one prescription do the work of two?



Yes, Kolantyl.®

Kolantyl Gel/Wafers contain aluminum hydroxide/magnesium hydroxide, and Bentyl® (dicyclomine hydrochloride) too.

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The girth control pill



Tepanil® Ten-tab®

(continuous release form)

(diethylpropion hydrochloride, N.F.)

When girth gets out of control, TEPANIL can provide sound support for the weight control program you recommend. TEPANIL reduces the appetite—patients enjoy food but eat less. Weight loss is significant—gradual—yet there is a relatively low incidence of CNS stimulation.

Contraindications: Concurrently with MAO inhibitors, in patients hypersensitive to this drug; in emotionally unstable patients susceptible to drug abuse.

Warning: Although generally safer than the amphetamines, use with great caution in patients with severe hypertension or severe cardiovascular disease. Do not use during first trimester of pregnancy unless potential benefits outweigh potential risks.

Adverse Reactions: Rarely severe enough to require discontinuation of therapy, unpleasant symptoms with diethylpropion hydrochloride have been reported to occur in relatively low incidence. As is characteristic of sympathomimetic agents, it may occasionally cause CNS effects such as insomnia, nervousness, dizziness, anxiety, and jitteriness. In contrast, CNS depression has been reported. In a few epileptics an increase in convulsive episodes has been reported. Sympathomimetic cardiovascular effects reported include ones such as tachycardia, precordial pain, arrhythmia, palpitation, and increased blood pressure. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride; this was an isolated experience, which has not been reported by others. Allergic phenomena reported include such conditions as rash, urticaria, ecchymosis, and erythema. Gastrointestinal effects such as diarrhea, constipation, nausea, vomiting, and abdominal discomfort have been reported. Specific reports on the hematopoietic system include two each of bone marrow depression, agranulocytosis, and leukopenia. A variety of miscellaneous adverse reactions have been reported by physicians. These include complaints such as dry mouth, headache, dyspnea, menstrual upset, hair loss, muscle pain, decreased libido, dysuria, and polyuria.

Convenience of two dosage forms: TEPANIL Ten-tab tablets: One 75 mg. tablet daily, swallowed whole, in midmorning (10 a.m.); TEPANIL: One 25 mg. tablet three times daily, one hour before meals. If desired, an additional tablet may be given in midevening to overcome night hunger. Use in children under 12 years of age is not recommended.

T-107/4/71/U S PATENT NO 3,001,910

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Painful night leg cramps...

unwelcome bedfellow for any patient– including those with arthritis, diabetes or PVD

One thing patients can sleep without, particularly patients with chronic disease conditions such as arthritis, diabetes or PVD, is painful night leg cramps. Although seldom the presenting complaint, night leg cramps can tie your patients up in painful knots. Now, just one tablet of QUINAMM at bedtime can usually bring an end to shattered sleep and needless suffering. Your patients will sleep restfully—gratefully—with QUINAMM, specific therapy to prevent painful night leg cramps.

Prescribing Information—Composition: Each white, beveled, compressed tablet contains: Quinine sulfate, 260 mg., Aminophylline, 195 mg. **Indications:** For the prevention and treatment of nocturnal and recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis and static foot deformities. **Contraindications:** QUINAMM is contraindicated in pregnancy because of its quinine content. **Precautions/Adverse Reactions:** Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. Discontinue use if ringing in the ears, deafness, skin rash, or visual disturbances occur. **Dosage:** One tablet upon retiring. Where necessary, dosage may be increased to one tablet following the evening meal and one tablet upon retiring. **Supplied:** Bottles of 100 and 500 tablets.

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Quinamm™ Specific therapy for night leg cramps
(quinine sulfate 260 mg., ominophylline 195 mg.)

Nothing new about Synirin other than ...it's a stable, uncoated, fast disintegrating tablet of aspirin with pentobarbital potentiating the aspirin analgesia.

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ASPIRIN 5 GR.—PENTOBARBITAL 1/8 GR.

ETHICAL ANALGESIA (economical if prescribed in 100 units with privilege of refills)

PRESCRIBING INFORMATION: To relieve tension headaches and arthritic pains, 2 tablets q 4 h. Aspirin and pentobarbital begin their action promptly, continuing for about 4 hours. The small pentobarbital content gives no perceptible sedation. Pentobarbital is destroyed by the body and there is no accumulation. Synirin will supply any aspirin therapy with equal safety. Use aspirin with caution in peptic ulcer.

EACH UNCOATED TABLET CONTAINS:

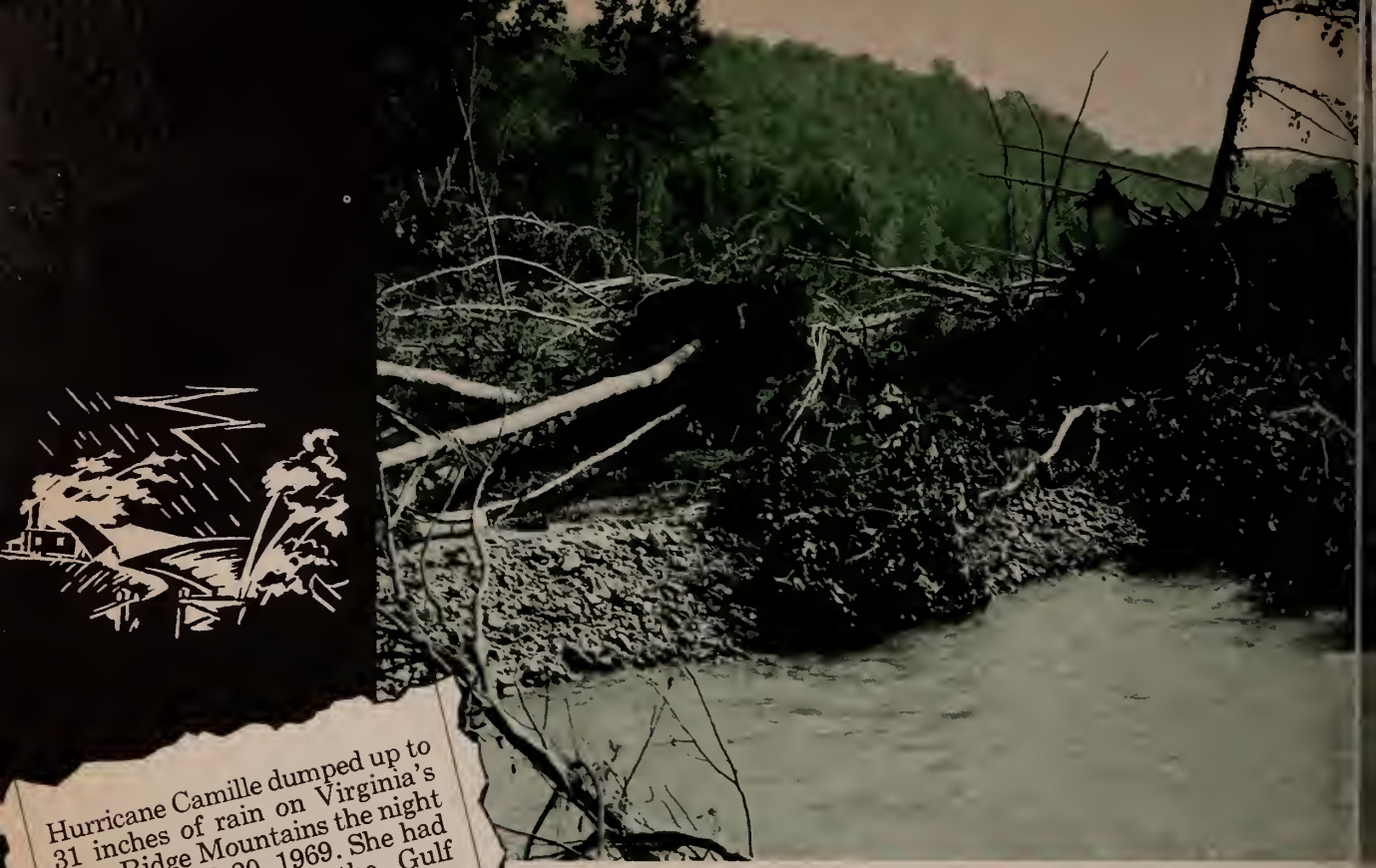
Aspirin 325 mg. (5 gr.)
Pentobarbital* 8 mg. (1/8 gr.)
*May be habit forming.

Federal law prohibits dispensing without prescription

DISPENSED IN BOTTLES OF 100 AND 1000 TABLETS

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A clinical supply of this new aspirin formulation may be requested.



Hurricane Camille dumped up to 31 inches of rain on Virginia's Blue Ridge Mountains the night of August 19-20, 1969. She had already devastated the Gulf Coast from Louisiana to Florida, halted her northward journey over Kentucky and Tennessee, then headed eastward over West Virginia and Virginia.
Cooperative Farmer

Emotional stress can be just as destructive to the individual as turbulent, ravaging flood waters are to land and property. Solfoton will contribute to the maintenance of a mental climate for purposeful living.

Solfoton®

SEDATION WITHOUT DEPRESSION

EACH TABLET OR CAPSULE CONTAINS:

Phenobarbital.....16 mg.
(Warning: may be habit-forming)

Bensulfoid (See PDR).....65 mg.

Precaution: same as 16 mg. phenobarbital

DOSAGE: One tablet or capsule every 6 hours will sustain mild sedation.

Available in three forms to satisfy prescribing circumstances:

TABLETS	100s	500s	5000s
CAPSULES	100s	500s	1000s
TABLETS S/C	100s	500s	4000s

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President's Page



Write Your Congressman

This is my last President's Page. I sort of regret not having more because I still have a lot of things on my mind to say. I suppose most of my efforts have read as if I had run around the house until I got up a good lather and then dashed off a mad letter.

Well, I'm mad again! Another one of the tentacles of the federal octopus is now butting in on good medical practice. By the time this page appears, most of you will be aware of the policy statement of the FDA concerning combination drugs. I also believe most of you are well aware of the pros and cons of combination drugs. I won't belabor the questions of economy, convenience, custom, etc.

I have one point to make. Somehow or other, somebody has persuaded most everyone in government that we doctors don't keep up, we don't read our literature, we don't know what we're treating or what we're prescribing.

When the Senate held hearings concerning the "pill," the notion was obviously in many Senators' minds that they just had to protect the public from the ill-considered, ignorant administrations of the doctors.

Now the FDA is saying about the same thing. This unwarranted contumely is ridiculous. I think it reprehensible that any part of our government sees fit to so derogate our profession, even by implication. Without available statistics, I'll wager that we doctors attend more meetings and subscribe to more literature—and read it—than any like number in any group, professional or not. In spite of implications to the contrary, doctors do keep up.

Maybe Congress really meant that the FDA, and not the clinician, should decide what is good medical practice, but I don't believe so. As far as I'm concerned the FDA is intruding into a field where it lacks competence and should lack jurisdiction.

I've written to my Congressman. Have you?

James T. Cobb, Jr., MD.

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This modern psychiatric hospital is now fully operational. With completion of the comfortable seclusion rooms and lounge complex, Lakeland Manor is prepared to offer full psychiatric services. Treatment procedures are geared to the most modern concepts of psychiatry. Treatment includes intensive dynamic psychotherapy for the individual, group psychotherapy, chemotherapy, occupational and recreational therapy. Every effort is made to create a highly therapeutic milieu. Patients are admitted on referral of their physicians either on a voluntary basis or commitment. All types of emotionally ill patients are accepted, including those with alcohol addiction. All patients are treated by private psychiatrists who make regular reports to the referring physician on the patient's progress.

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Brief Summary of Prescribing Information–9-9/22/69. For complete information consult Official Package Circular.
Indications: Essential hypertension. Use cautiously in patients with renal insufficiency, particularly if they are digitalized.
Contraindications: Anuria, oliguria, active peptic ulceration, ulcerative colitis, severe depression or hypersensitivity to its components contraindicates the use of Salutensin.
Warnings: Small-bowel lesions (obstruction, hemorrhage, perforation and death) have occurred during therapy with enteric-coated formulations containing potassium, with or without thiazides. Such potassium formulations should be used with Salutensin only when indicated and should be discontinued immediately if abdominal pain, distension, nausea, vomiting or gastrointestinal bleeding occurs. Use cautiously, and only when deemed essential, in fertile, pregnant or lactating patients. *Use in Pregnancy:* Thiazides cross the placenta and can cause fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly electrolyte disturbances. Fatal reactions may occur with reserpine during electroshock therapy; discontinue Salutensin 2 weeks before such therapy. Increased respiratory secretions, nasal congestion, cyanosis and anorexia may occur in infants born to reserpine-treated mothers.
Precautions: Azotemia, hypochloremia, hyponatremia, hypochloremic alkalosis and hypokaliemia (especially with hepatic cirrhosis and corticosteroid therapy) may occur, particularly with pre-existing vomiting and diarrhea. Potassium loss or protoveratrine A may cause digitalis intoxication. *Potassium loss responds to potassium-rich foods, potassium chloride or, if necessary, discontinuation of therapy. Stop therapy if protoveratrine A induces digitalis intoxication.* Serum ammonia elevation may precipitate coma in precomatose hepatic cirrhotics. Discontinue therapy 2 weeks before surgery or if myocardial irritability, progressive azotemia or severe depression occur. Exercise caution in patients with chronic uremia, angina pectoris, coronary thrombosis or extensive cerebral vascular disease *or bronchial asthma* and in those with a history of peptic ulceration or bronchial asthma; in post-sympathectomy patients; in patients on quinidine; and in patients with gallstones, in whom biliary colic may occur. Patients who have diabetes mellitus or who are suspected of being prediabetic should be kept under close observation if treated with this agent.
Adverse Reactions: Hydroflumethiazide: Skin rashes (including exfoliative dermatitis), skin photosensitivity, urticaria, necrotizing angiitis, xanthopsia, granulocytopenia, aplastic anemia, orthostatic hypotension (potentiated with alcohol, barbiturates or narcotics), allergic glomerulonephritis, acute pancreatitis, liver involvement (intrahepatic cholestatic jaundice), purpura plus or minus thrombocytopenia, hyperuricemia, hyperglycemia, glycosuria, malaise, weakness, dizziness, fatigue, paresthesias, muscle cramps, skin rash, epigastric distress, vomiting, diarrhea and constipation. *Reserpine:* Depression, peptic ulceration, diarrhea, Parkinsonism, nasal stuffiness, dryness of the mouth, weight gain, impotence or decreased libido, conjunctival injection, dull sensorium, deafness, glaucoma, uveitis, optic atrophy, and, with overdosage, agitation, insomnia and nightmares. *Protoveratrine A:* Nausea, vomiting, cardiac arrhythmia, prostration, blurring vision, mental confusion, excessive hypotension and bradycardia. (Treat bradycardia with atropine and hypotension with vasopressors.)
Usual Dose: 1 tablet b.i.d.
Supplied: Bottles of 60, 600, and 1000 scored 50 mg. tablets.

Salutensin®
hydroflumethiazide, 50 mg./reserpine, 0.125 mg. protoveratrine A, 0.2 mg.

BRISTOL
BRISTOL LABORATORIES
Division of Bristol-Myers Company
Syracuse, New York 13201

The antihypertensive therapy that is easy to live with.*

When successive blood pressure readings confirm essential hypertension, consider Salutensin for:

Easy-to-live-with control. Gradual reduction of blood pressure leading to decisive, comfortable control is the common clinical response.

*Salutensin is usually well-tolerated (however, serious side effects can occur; see adjacent column for brief summary of prescribing information).

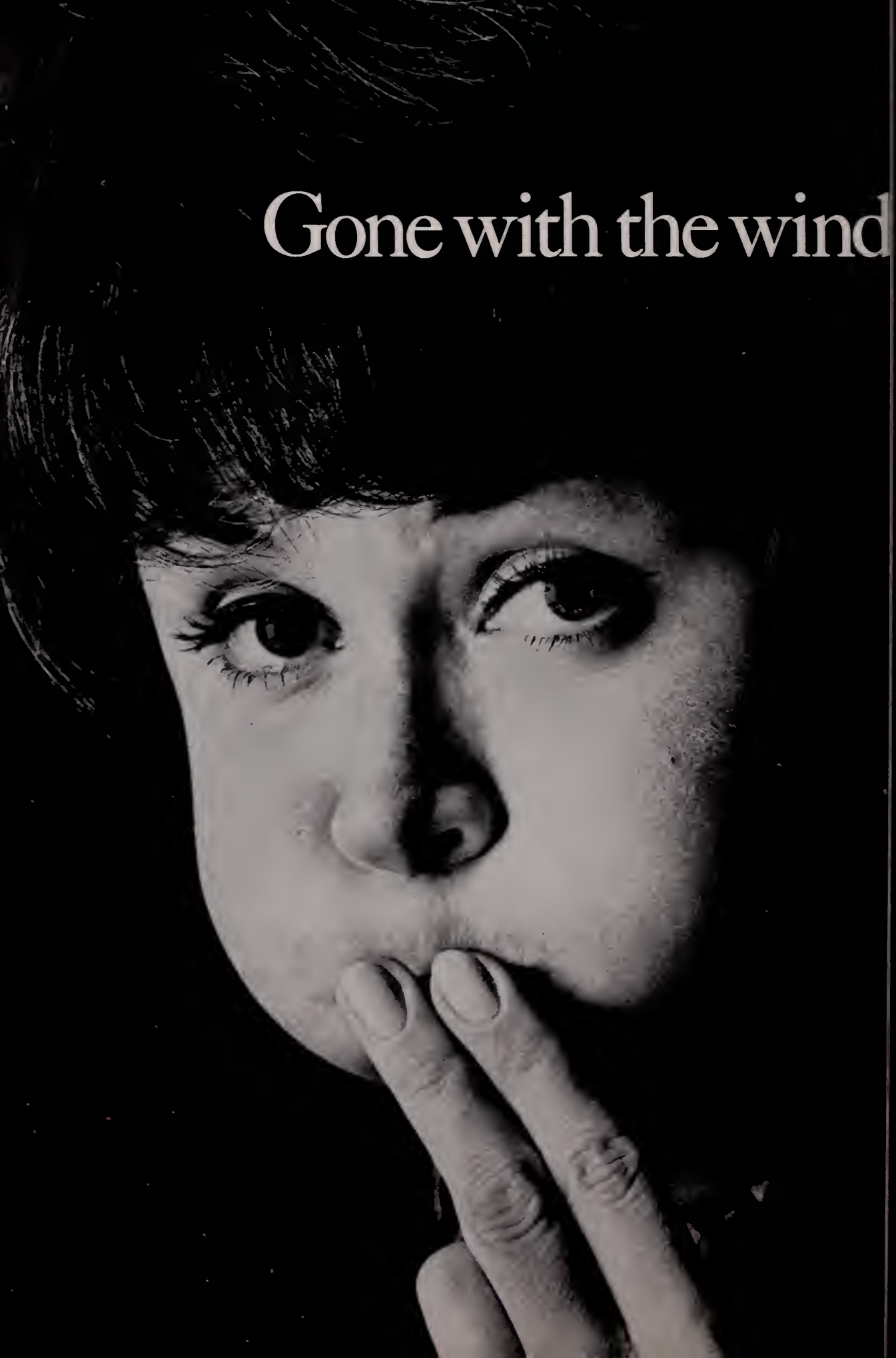
Easy-to-live with dosage. Two tablets a day usually achieves control. One to two tablets a day often maintains control without need for additional antihypertensive agents.

Easy-to-live with cost of therapy. The one to two tablets a day maintenance dose makes Salutensin economical to stay with. Important, because long-term control calls for long-term therapy.

Salutensin®

hydroflumethiazide, 50 mg./reserpine, 0.125 mg. protoveratrine A, 0.2 mg.




Gone with the wind

The gas/acid group of disorders

The two most common complaints referable to the upper gastrointestinal tract for which patients seek medical relief are hyperacidity and 'gas.' The two often occur together."*

Frees captured gas...neutralizes free acid

SILAIN-GEL Tablets and Liquid are separate formulas designed to provide equivalent dual-action symptomatic relief. Both dosage forms contain simethicone which effectively frees trapped gas, enabling the patient to eliminate it. Magnesium hydroxide in both assures a rapid rise in pH for prompt relief of hyperacidity. The special co-dried aluminum hydroxide/magnesium carbonate gel in the tablets assures the same rapid and uniform reaction rate as the liquid. Thus, both medications achieve prompt and prolonged neutralization of free acid *plus* prompt relief from the pain and pressure of trapped gas.

Always in good taste

The pleasant, distinctive flavor of SILAIN-GEL, as well as its non-constipating feature, make it a therapy your patients can live with—in comfort and without complaint.

Select the form of SILAIN-GEL you want to provide symptomatic relief in: gastric ulcer • duodenal ulcer • heartburn • gastric hyperacidity • gastritis • dyspepsia

when the patient prefers the convenience of a tablet, select
Silain-Gel® Tablets:

when the patient prefers a liquid, select
Silain-Gel® Liquid

Also available for the patient who needs an antifrothicant/antiflatulent agent only: Silain® (simethicone) Tablets

Slanger, A.: Med. Times *94*:150 (Feb.) 1966.

Announcing the "Antgasid"

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Tablets: simethicone plus aluminum hydroxide/magnesium carbonate co-dried gel and magnesium hydroxide
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one dose does both: frees captured gas...neutralizes free acid

A·H·ROBINS A.H. Robins Company, Richmond, Virginia 23220

sterile solution (300 mg. per ml.)

Consider Lincocin®

(lincomycin hydrochloride, Upjohn)

and single-dose 2 ml
disposable syringe

For your convenience
in 2 ml. and 10 ml. vials...



70 by The Upjohn Company JA70-9835 MED B-4-S (KZL-5)

Upjohn THE UPJOHN COMPANY
KALAMAZOO, MICHIGAN

nce-popular treatment for back pains
s to have the seventh son of a seventh son
nd or walk on the patient's back.





The pain of earache was allegedly relieved by holding a hot roasted onion to the ear.

r headache, a sovereign remedy was
wear a snakeskin round one's head.



A realistic approach to pain relief



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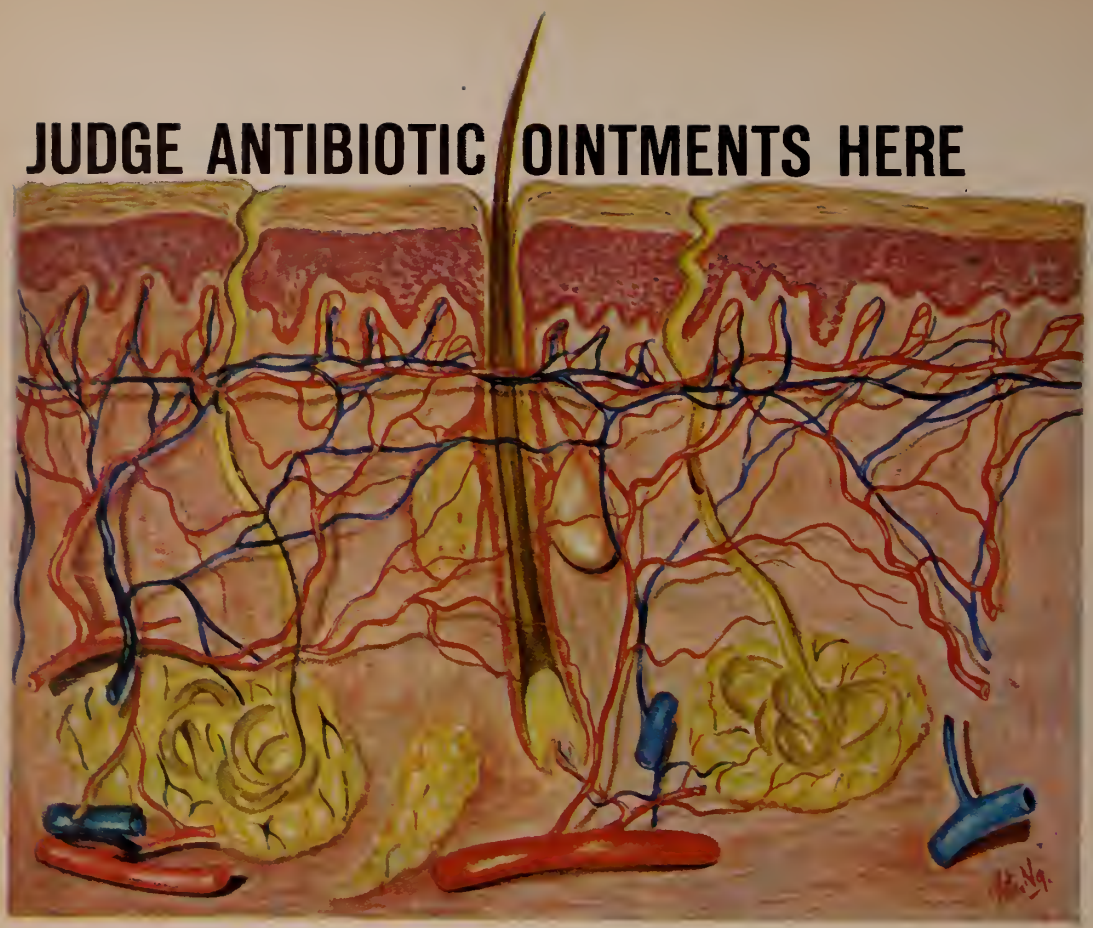
ch tablet contains:
odeine Phosphate gr. 1/2 (Warning—
ay be habit forming), Phenacetin gr. 2 1/2,
spirin gr. 3 1/2, Caffeine gr. 1/2.

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THE 500 mg. CAPSULE

CEVI-BID releases Vitamin C through its unique micro-dialysis process at a continuous, smooth, predictable rate for a 24 hour period on b.i.d. dosage—dependent only on the presence of fluid in the g. i. tract, and independent of pH or other variables.

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Prescribe CEVI-BID, the 500 mg. sustained-release Vitamin C capsule whenever Vitamin C is indicated.

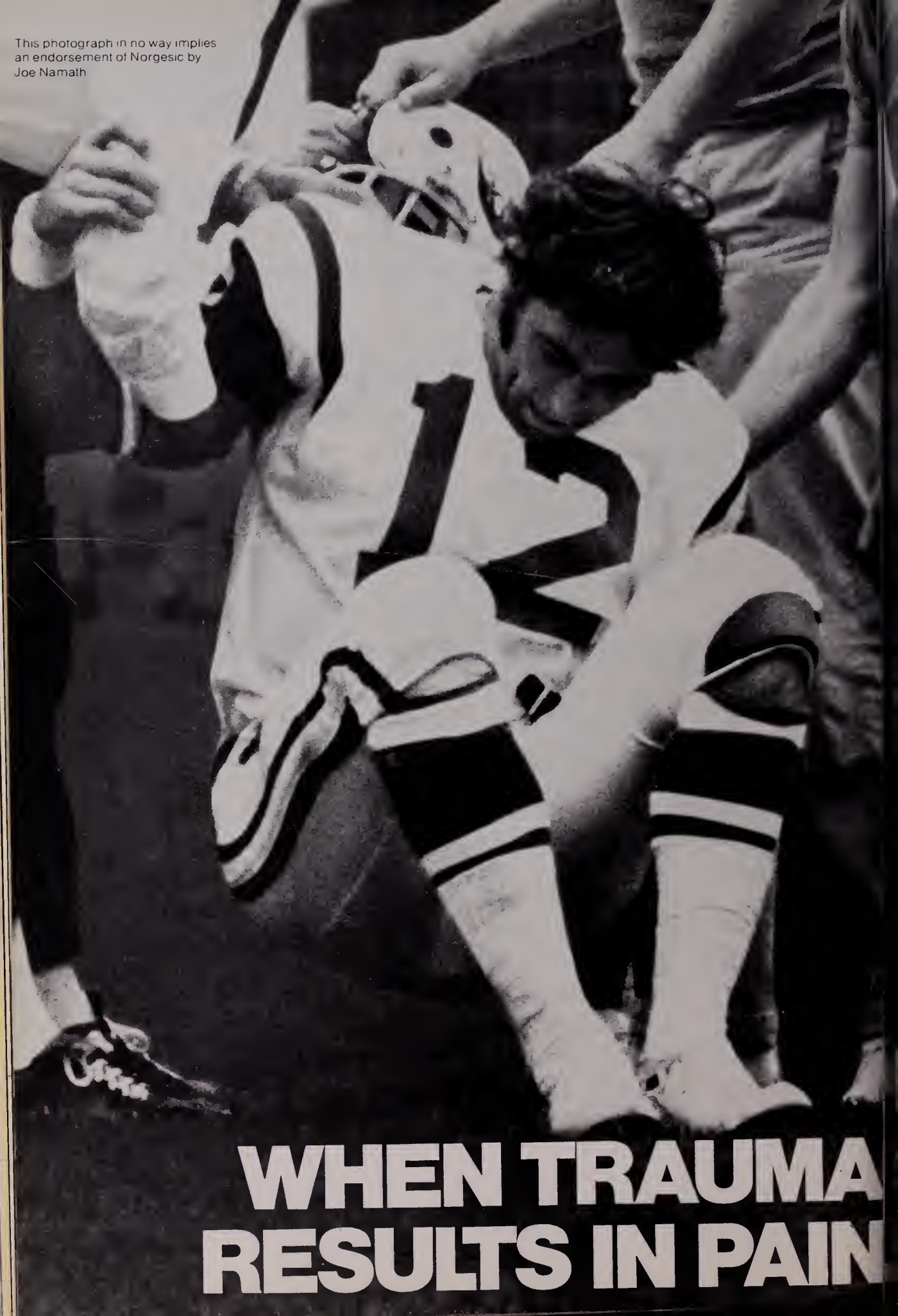
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approximately 80% of patients

Contraindications: Because of the mild anticholinergic effect of orphenadrine, Norgesic should not be used in patients with glaucoma, pyloric or duodenal obstruction, achalasia, prostatic hypertrophy or obstructions at the bladder neck. Norgesic is also contraindicated in patients with myasthenia gravis and in patients known to be sensitive to aspirin, phenacetin or caffeine.

Since mental confusion, anxiety and tremors have been reported in patients receiving orphenadrine and propoxyphene concurrently, it is recommended that Norgesic not be given in combination with propoxyphene (Darvon®).

Warnings: USE IN PREGNANCY: Since safety of the use of this preparation in pregnancy, during lactation, or in the child-bearing age has not been established, use of the drug in such patients requires that the potential benefits of the drug be weighed against its possible hazard to the mother and child.

USE IN CHILDREN: The safe and effective use of this drug in children has not been established; therefore, the physician must weigh the benefits against the potential hazards.

Precautions: It has been reported that prolonged or excessive use of phenacetin may result in nephrotoxicity. Caution, therefore, should be exercised when Norgesic is administered to patients with renal disorders. It should also be used with caution in patients with tachycardia.

Adverse Reactions: Side effects of Norgesic are those seen with APC or those usually associated with mild anticholinergic agents. These may include tachycardia, palpitation, urinary hesitancy or retention, dry mouth, blurred vision, dilatation of the pupil, increased intraocular tension, weakness, nausea, vomiting, headache, dizziness, constipation, drowsiness, and rarely, urticaria and other dermatoses. Infrequently an elderly patient may experience some degree of confusion. Mild central excitation and occasional hallucinations may be observed. These mild side effects can usually be eliminated by reduction in dosage. One case of aplastic anemia associated with the use of Norgesic has been reported. No causal relationship has been established.

Dosage and Administration: Adults—1 to 2 tablets 3 to 4 times daily.

Riker Laboratories, Inc.
NORTHRIDGE, CALIFORNIA 91324

A SUBSIDIARY OF 3M COMPANY

Norgesic...the versatile analgesic
provides effective analgesia and relief
of associated muscle spasm


For the prevention of the gripping pain of angina
Peritrate® SA
Sustained Action (pentaerythritol tetranitrate) 80 mg
A logical choice for the "new" patient with angina pectoris.
See full prescribing information on opposite page.

Peritrate® SA

Sustained Action
(pentaerythritol
tetranitrate) 80 mg

Indications: PERITRATE SA Sustained Action (pentaerythritol tetranitrate) 80 mg is indicated for the relief of angina pectoris (pain associated with coronary artery disease). It is not intended to abort the acute anginal episode but is widely regarded as useful in the prophylactic treatment of angina pectoris.
Contraindications: PERITRATE SA Sustained Action (pentaerythritol tetranitrate) 80 mg is contraindicated in patients who have a history of sensitivity to the drug.
Warning: Data supporting the use of PERITRATE (pentaerythritol tetranitrate) during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety. This drug can act as a physiological antagonist to norepinephrine, acetylcholine, histamine, and many other agents.
Precautions: Should be used with caution in patients who have glaucoma. Tolerance to this drug, and cross-tolerance to other nitrites and nitrates may occur.
Adverse Reactions: Side effects reported to date have been predominantly related to rash (which requires discontinuation of medication) and headache and gastrointestinal distress, which are usually mild and transient with continuation of medication. In some cases severe persistent headaches may occur. In addition, the following adverse reactions to nitrates such as pentaerythritol tetranitrate have been reported in the literature: (a) Cutaneous vasodilatation with flushing. (b) Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop. (c) An occasional individual exhibits marked sensitivity to the hypotensive effects of nitrite and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration and collapse) can occur, even with the usual therapeutic doses. Alcohol may enhance this effect.
Dosage: PERITRATE SA Sustained Action (pentaerythritol tetranitrate) 80 mg (b.i.d. on an empty stomach), 1 tablet immediately on arising and 1 tablet 12 hours later.
Supplied: PERITRATE SA Sustained Action (pentaerythritol tetranitrate) 80 mg, bottles of 100 and 1000 tablets.
Additional Dosage Forms: PERITRATE (pentaerythritol tetranitrate) 10 mg and 20 mg tablets with or without phenobarbital 15 mg, bottles of 100 and 1000 tablets. PERITRATE with Phenobarbital SA Sustained Action—pentaerythritol tetranitrate 80 mg and phenobarbital 45 mg, bottles of 100 and 1000 tablets.
Warning: Tablets containing phenobarbital may be habit forming. PERITRATE with Nitroglycerin—pentaerythritol tetranitrate 10 mg with nitroglycerin 0.3 mg, bottles of 50 tablets.

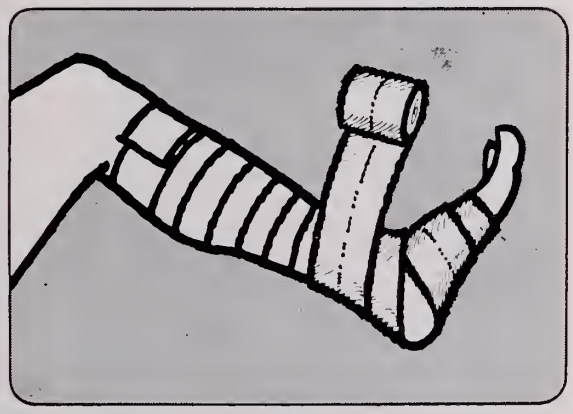
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They all have two things in common: they have monilial vaginiti



CANDEPTIN now gives you complete therapeutic flexibility.
It is the specific high potency antimonilial agent which provides superior effectiveness. And there is at least one dosage form to meet every patient's individual needs and/or preference.

CANDEPTIN = more advantages for your patients ···
It's fast—prompt symptomatic relief of itching, burning, candidiasis discharge and malodor in 48-72 hours; usually cures completely in a single 14-day course of therapy.

It's safe—no side effects, clinical reports of irritation or sensitization have been extremely rare; exact dosage can be assured.[5,6]

It's convenient—easy to use in all forms, encourages patient acceptance and cooperation; therapy can be started in your office.

It's clinically proven—Candicidin is significantly more potent in vitro than nystatin,[1] and has a record of cure rates of 90% and more in pregnant and non-pregnant patients.[2,3,4] In two recent studies, both involving gravid and non-gravid patients, a 100% culture-confirmed cure rate was achieved with 14 days of therapy.[5,6]

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Now Vagelettes offer a unique new dosage form—cand cidin ointment in a soft gelatin capsule—for virtual unlimited application. With Candeptin in three form your range of therapy has been extended to meet ev those previously difficult-to-treat Candida cases.

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References: 1. Lechevalier, H.: Antibiotics Annual 1959-19 New York, Antibiotica Inc., 1960. pp. 614-618. 2. Olsen, J.I Journal-Lancet *85*:287 (July) 1965. 3. Giorlando, S.W., Torr J.F., and Muscillo, G.: Am. J. Obst. & Gynec. *90*:370 (Oct. 1964. 4. Friedel, H.J.: Maryland M.J., *15*:36 (Feb.) 1966. 5. Gi lando, S.W.: to be published 1971. 6. Decker, A.: Case Repo on File, Medical Department, Julius Schmid.

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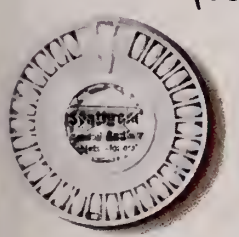
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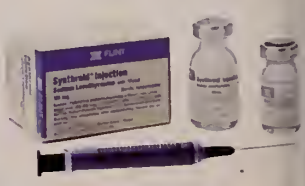


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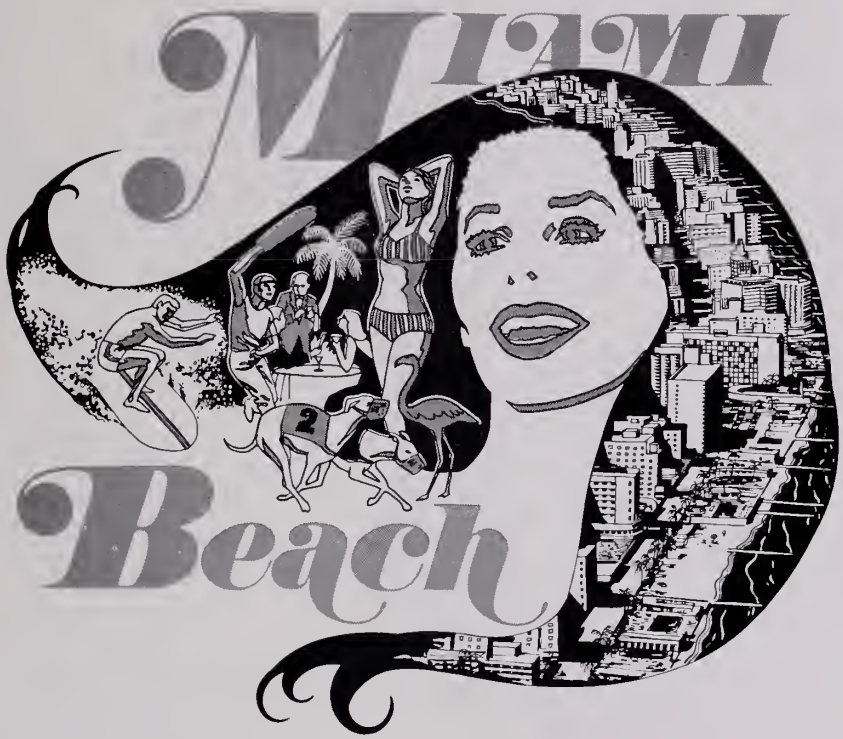
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THE JOURNAL OF THE Florida Medical Association

MAY, 1971 • VOLUME 58 • NUMBER 5

Introduction: We are grateful to the Journal of the Florida Medical Association for the opportunity of disseminating the information transmitted at the Second Annual Birth Defects Symposium, "Disorders of Glucose Metabolism in Childhood," held at the University of Florida College of Medicine, Gainesville, October 30-31 1970. No physician has the time to attend all the postgraduate programs he would like to, but this fact does not diminish his need to know the current thinking on the problems he must deal with. To meet this need in a wide variety of birth defects problems is the purpose of the postgraduate education program of the University of Florida's Birth Defects Center. We look forward to an informative annual contribution toward this goal via the Journal's publication of these symposia.

We wish to express our appreciation for generous contributions that made this symposium possible from The Upjohn Co., USV Pharmaceutical Corp., Eli Lilly and Co., Chas. Pfizer and Co., Inc., and the North Central Florida Chapter of the March of Dimes.

Arlan L. Rosenbloom, M.D.
Director, National Foundation—
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Owen M. Rennert, M.D.
Chief, Division of Genetics, Endocrinology
and Metabolism

Regulation of Energy Metabolism in Children

Allan Drash, M.D.

A constant source of energy is a requirement for the human organism. Interruption of the energy supply to the essential organs, even for brief periods of time, may result in irreversible damage or death. Over eons of evolutionary time, the mammalian organism has evolved control mechanisms which are uniquely suited to maintain metabolic balance and homeostasis in the face of intermittent and occasionally prolonged periods of food deprivation. However, man is ultimately dependent upon his nutritional intake to meet all of his energy needs.

Consider evolving man as a hunter who ate substantial amounts of foods only when he made a kill. It is clear that we would not be here today if the body had not, through evolutionary refinement, developed methods for storage and retrieval of energy. Unlike our situation today, our ancestors had to be able to tolerate long periods of fasting, yet remain active and mobile in order to continue the hunt. This meant that storage mechanisms had to be perfected and highly compact sources of energy utilized. Otherwise the endogenous storage depots would place on the hunter an inordinate burden of both weight and space, thus greatly hampering his physical capabilities.

Pathological alterations in the normal sequence of energy metabolism, storage, and retrieval are reflected in individual cases as disease states. I would like to briefly review the mechanism for the assimilation of nutrients, their storage and interconversion and some of the primary biochemical pathways that are involved in energy metabolism.

Nutritional Needs

The American diet is made up approximately of 45% of total calories coming from carbohydrate, 40% from fat and about 15% from protein. About two thirds of our carbohydrate calories

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come from refined or simple sugars. This is a revolutionary change in man's dietary habits. Until recent times refined sugars were not available and the carbohydrate came primarily from starches.

Man's caloric requirement may be met by a remarkably variable nutritional mix. In many of the underdeveloped countries carbohydrate, principally from grains, makes up a much larger proportion of the total dietary requirements than in Western man. In certain parts of Africa 70-80% of the total caloric requirements are derived from carbohydrate, almost exclusively from grain. At the other extreme, the Eskimo derives most of his caloric requirement from fat and protein and very little from carbohydrate. Carbohydrate, then, is not an essential ingredient of the diet. The necessary ingredients include protein, providing the essential amino acids, a small amount of fat to provide the essential long-chain fatty acids and certain vitamins and other trace metals. The essential aspects of the diet really make up a small proportion of the total caloric needs. The individual, then, is left free to choose the source of calories for energy purposes.

Digestion

The digestive process involves the degradation of complex foods to much smaller particles which are then absorbed from the intestinal tract. Proteins are sequentially degraded to dipeptides and then under the influence of intestinal dipeptidases are split into single amino acids and absorbed as such. I would like to make a prediction that we are going to find malabsorptive diseases in which there are dipeptidase deficiencies very comparable to what occurs with disaccharidase deficiencies.

The starches are split by amylase either of salivary or pancreatic origin to the disaccharide, maltose. The other two primary carbohydrates in our diet are disaccharides, milk sugar or lactose and table sugar or sucrose. Disaccharidase activity occurs in the brush border of the intestinal mucosa which contains specific enzymes responsible for the splitting of disaccharides to monosaccharides. Maltose is split to two glucose units by the enzyme, maltase. Sucrose is split by the enzyme, sucrase, to yield glucose and fructose and lactose is split by the enzyme, lactase, to yield one molecule of galactose and one of glucose. Congenital or acquired absence of one or more of the intestinal disaccharidase enzymes will result in impairment in degradation of the specific carbohydrate, resulting in diarrhea, malabsorption and failure to thrive.

Dietary fats are primarily neutral fats or triglycerides. These are absorbed, not into the portal circulation, but primarily into the lymphatic drainage of the small intestine as very small fat droplets, chylomicrons, which then get into the general circulation through the thoracic duct.

Metabolic Interrelationships

Galactose and fructose per se play a very small role in energy metabolism. However, by enzymatic interconversion, these sugars are readily changed to glucose. A discussion of some of the major points of carbohydrate metabolism is appropriate at this point.

The liver is central in the control of energy metabolism. The hexoses, glucose, galactose and fructose, are readily transferred across the liver cell membrane on the basis of concentration gradient. This is different from most of the other tissue in the body in which insulin functions as a mediator of transport across the cell membrane. Insulin is not required to move glucose into the liver. The first biochemical intracellular reaction that occurs with the hexoses is phosphorylation. Glucose is phosphorylated to glucose-6-phosphate. Galactose is phosphorylated to galactose-1-phosphate and fructose primarily to fructose-1-phosphate but also to fructose-6-phosphate. Glucose-6-phosphate is central in terms of energy metabolism. It is the primary substrate for the Embden-Meyerhof pathway (Fig. 1). This is the major pathway of glucose degradation and of energy production in which glucose-6-phosphate is taken sequentially to pyruvate. It is important to realize that this is an anaerobic pathway. It does not require organic elemental oxygen. The end product of the Embden-Meyerhof pathway is pyruvic acid which then is normally metabolized in one of three ways. If the pathways are fully

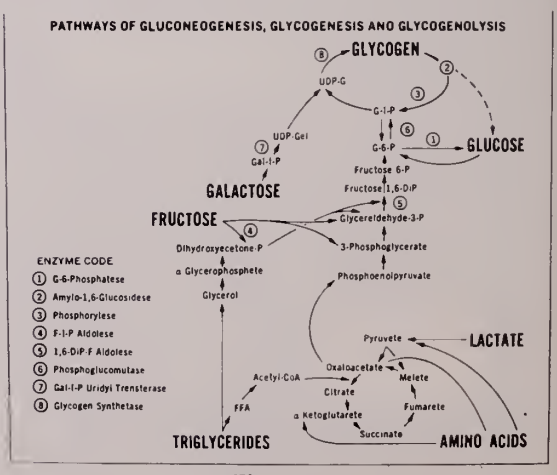


Figure 1

opened and energy metabolism is going as it normally does in the postprandial period, there is movement into and around the TCA cycle (tricarboxylic acid) with the production of CO_2, water and ATP (the storage form of energy). Another possibility is decarboxylation or a splitting off of CO_2 to produce acetyl-CoA. This compound may be either oxidized through the TCA cycle or used to form long-chained free fatty acids (FFA). When elemental oxygen, which is necessary in the TCA cycle, is unavailable there is a reduction of pyruvate to lactate, an entirely reversible reaction. The Embden-Meyerhof pathway produces an important byproduct of the triose phosphates, alpha-glyceryl-phosphate. Alpha-glyceryl-phosphate is the backbone of triglycerides. It makes up the three carbon units onto which long-chain fatty acids are placed in order to form neutral fat.

An alternate energy pathway is the hexose monophosphate shunt. This is an oxidative pathway. It is of primary importance in energy metabolism because it produces the hydrogen ion (TPN H^+) which is utilized in the production of long-chain fatty acids.

To summarize, the backbone of fats, alpha-glyceryl-phosphate, is produced as a side-product of the triose phosphates. The basic unit of the long-chain fatty acid, acetyl-CoA, is a by-product of pyruvic acid and the hydrogen ion necessary for the reduction of acetyl-CoA and the further production of long-chain fatty acid results from the pentose shunt. These are the mechanisms for the production and storage of energy in the form of fat.

Glucose-6-phosphate is important from another point of view in terms of energy storage. It is a precursor of glycogen. Glucose-6-phosphate is converted to glucose-1-phosphate by the appropriate enzyme and this then reacts with a glycogen primer to increase the size of the glycogen molecule under the influence of glycogen synthetase and the brancher enzyme. In the degradation of glycogen to free glucose, the initiating enzyme is phosphorylase which splits off individual peripheral glucose units and then another enzyme, the debrancher enzyme, splits the branch points and allows phosphorylase to continue degradation. Glucose is released from the liver under these circumstances by two mechanisms. Free glucose can be released by the debrancher enzyme. Only about 10% of the total glycogen can be released directly as free glucose. The remainder is converted back to glucose-1-phosphate and further converted to glucose-6-phosphate. It may go through the various pathways previously discussed. Its release into the general circulation, which is the mechanism by which the liver controls the concentration of glucose in the blood, is dependent upon glucose-6-phosphatase, the enzyme that is deficient in type 1 glycogen storage disease.

The body's ability to store energy in the form of glycogen is greatly limited. In the immediate postprandial period the glycogen content of the liver rarely exceeds 5%. Small amounts of glycogen are found in the skeletal muscles and kidney. Skeletal muscle is deficient in glucose-6-phosphatase, consequently, muscle cannot release glucose. It releases lactate. The liver store of glycogen must then be considered the primary source of glucose to the body during periods of fasting. There are approximately 60 grams of glucose in the form of glycogen in the liver of the 70-kilo man in the postprandial period. Consider that this 70-kilo man has a daily requirement of 2400 calories. Sixty grams of glycogen is equivalent to only about 240 calories so that 10% of his 24-hour caloric needs are available in the liver in the form of glycogen. If he were completely dependent upon liver glycogen for his total energy requirements his glycogen content and his blood glucose would fall to zero in about 2½ hours and he would obviously die. This does not happen because of the control mechanisms.

Reversal of the Embden-Meyerhof pathway is the mechanism for generating glucose or potential glucose from other sources. This is called gluconeogenesis, the making of glucose from compounds which are not carbohydrate. This occurs primarily from amino acids but some glucose is produced from glycerol, pyruvates and lactase. When fat is mobilized it starts out as neutral fat which is glycerol with three long-chain fatty acids attached. In the mobilization process triglyceride lipase splits the long-chain fatty acids from glycerol. Glycerol may be regenerated to form glucose. The long-chained fatty acids cannot be converted into glucose. However, from the point of view of energy balance fatty acids are used as an alternate fuel.

Let us now turn to a consideration of some of the metabolic changes that occur following the ingestion of food. In the period following the ingestion of a mixed meal, there is a rise in the concentration of glucose and amino acids in the peripheral circulation. This increase in concen-

tration above basal levels lasts for 2-3 hours. During this period, the immediate postprandial period, the body is burning glucose as the predominant source of energy. There are a number of ways to demonstrate this but one of the most direct is the utilization of the respiratory quotient (RQ). When the energy source is coming from carbohydrate one produces the same amount of CO_2 as he utilizes oxygen and RQ= 1.0. When burning fat, the RQ is about .6, indicating that there is a greater amount of CO_2 produced for the amount of oxygen utilized. Utilizing these measurements, we know that in the immediate postprandial period, whether the meal is pure carbohydrate or a normal mixed meal, the RQ will be close to 1, because the body is utilizing glucose almost exclusively as the energy source. This continues for two or three hours. As time passes after food ingestion the RQ begins to fall and continues until a quotient of .6 or .65 is reached indicating that the body has converted over to fat as the predominant fuel.

Normal energy metabolism regularly cycles between glucose as a primary energy source during the postprandial period to FFA as a primary energy source during the distal postprandial period. When we ingest a mixed meal, we release insulin. Insulin is responsible for the direction of the metabolism over the next two or three hours. What does it do? It directs utilization of glucose as the primary energy source. It directs the storage of excess carbohydrate either as glycogen or as fat. It inhibits the release of FFA. As the glucose concentration in the circulation, following food ingestion, returns toward normal, the insulin level falls. There is then release of hormones which stimulate release of FFA from adipose tissue and lead to conversion to the utilization of FFA for energy. With food ingestion we switch to insulin and glucose metabolism. As the day wears on and the insulin effect wanes, the body automatically switches back to FFA. If this control mechanism is not sharply honed—if this does not happen efficiently, we have disease. The control mechanisms are predominantly hormonal in nature and are mediated through enzyme activities.

Insulin has traditionally been thought to be released from the pancreas primarily due to changes in the concentration of glucose in the pancreatic artery. However, we know now that there are multiple nutrients which may stimulate insulin release from the pancreas. A variety of amino acids will do this. In addition there is some data suggesting that FFA and/or ketone bodies may also stimulate the release of insulin from the pancreas. The effects of insulin on energy economy are multiple.

Insulin has a primary effect on membrane transport. It promotes translocation of glucose from the intravascular to the intracellular compartment. In the absence of insulin little glucose enters the cell. Insulin also inhibits the release of glucose from the liver by mechanisms that are not entirely understood. The overall effect of the injection of insulin into the body is an increase in the peripheral uptake of glucose and a decrease of glucose released from the liver, with a concomitant fall in blood sugar concentration. In the presence of excess carbohydrate, insulin stimulates glycogen deposition. It also stimulates the conversion of excess carbohydrate to fat. In addition, insulin inhibits the lipase enzymes responsible for mobilizing fat from adipose tissue, thus preventing a rise in FFA. Insulin antagonizes the action of the hormonal agents which are hyperglycemic and lipolytic.

A very important action of insulin is a synergistic effect with growth hormone. Insulin can be considered a growth hormone. It is essential to positive protein balance. It stimulates an increase in amino acid uptake and RNA synthesis. It stimulates a number of steps in the sequence of protein synthesis. Growth hormone has a primary effect on cell multiplication, increasing the numbers of cells, while insulin is more responsible for increasing cell size. Obviously we need both in proper sequence for multiplication and enlargement of cells in order to grow normally.

Energy balance varies according to supply and demand between the availability of glucose or its very effective substitute, FFA. The control mechanisms are in a delicate balance between insulin and a number of hormonal agents which might be considered insulin antagonists. These include growth hormone, ACTH, cortisone, epinephrine and glucagon. Growth hormone inhibits the action of insulin on glucose movement in the periphery. Growth hormone also has another interesting effect. It is a stimulant of insulin release. It is not clear whether this is a direct effect on the islets or secondary to peripheral antagonism. In the hypopituitary person who is not obese, insulin levels are low and with the administration of growth hormone insulin responses return toward normal. Growth hormone stimulates fat mobilization, providing an increase in concentration of

fat, particularly FFA in the circulation as an alternate fuel.

ACTH has a number of effects on carbohydrate and energy metabolism. Its primary effect is mediated through the adrenal cortex in the stimulation of cortisol production and release. It has some extra-adrenal effects. These include a direct effect of ACTH on fat mobilization very similar to what occurs with growth hormone. ACTH also stimulates insulin release.

The effect of cortisol on energy metabolism is primarily through the control of the rate of gluconeogenesis. Cortisol stimulates the conversion of amino acids into the glucose pool. The patient who is deficient in cortisol, whether he has classical Addison's disease or is a child with virilizing adrenal hyperplasia, has a tendency to develop hypoglycemia on fasting.

Epinephrine is released very rapidly and has very rapid effects on energy metabolism. It is probably the most potent mobilizer of FFA and acts much more quickly than does growth hormone or ACTH. In addition, epinephrine is involved in the conversion of inactive to active phosphorylase in both liver and muscle. Following epinephrine injection there is a prompt rise in blood sugar and lactic acid. Finally, epinephrine has a direct inhibitory effect on insulin release. The only other physiological situation in which we see inhibition of insulin release is starvation.

Glucagon is an interesting hormone. There are at least two glucagons, gut glucagon or a gut glucagon-like compound and pancreatic glucagon, produced in alpha cells of the pancreas. The effects of gut glucagon would appear to be predominately on insulin release. It has been known for years that oral ingestion of glucose produces a much greater insulin response than the same amount of glucose given intravenously. This results from the release of gut glucagon with glucose absorption. Pancreatic glucagon works synergistically with cortisol to increase the rate of gluconeogenesis. It also is similar to epinephrine in that it activates liver phosphorylase, resulting in a prompt release of glucose from glycogen. Both glucagons are very effective stimulators of insulin release.

Derangements of Glucose Metabolism

Any situation which impairs the glucose phase of metabolism, i.e., shortens it, will result in hyperglycemia. Any condition that prolongs the glucose phase of metabolism or impairs the switch to FFA metabolism will result in hypoglycemia—whatever the situation that is primarily responsible. A few illustrations of diseases in which clinical features are predominantly due to derangement of energy metabolism might be useful. Both diabetes mellitus and spontaneous hypoglycemia are examples of defective energy metabolism.

The glycogen storage diseases (GSD) illustrate well impairment in energy metabolism. There have now been described some dozen genetic errors in glycogen metabolism. From the point of view of systemic impairment of energy metabolism, Types I, III and VI are most important.

Type I GSD is known as von Gierke's disease. The child has a very big liver, frequently has xanthoma, chronic acidosis, growth failure, and hypoglycemia. This child is deficient in the enzyme glucose-6-phosphatase, which is responsible for releasing free glucose into the general circulation. The blood glucose may be as low as 8-10 mg./100%. Yet frequently these children are asymptomatic despite very low glucose levels.

These patients tolerate extreme biochemical hypoglycemia because, over time, their central nervous system adapts to the utilization of ketone bodies, FFA and lactic acid as substitutes for glucose. We know that this can happen from work carried out in adult obese patients under prolonged starvation. The brain does not make this adjustment rapidly, however. The initial metabolic response to hypoglycemia is activation of several control mechanisms. The children with Type I GSD have high epinephrine levels and probably high growth hormone and cortisol levels as well. They are in a state of marked fat mobilization. Because of this overflow of FFA they develop ketone bodies and characteristically have ketoacidosis. In addition, because of the movement of energy down the Embden-Meyerhof pathway in the liver and muscle, they produce excessive amounts of lactate, causing lactic acidosis. This leads to chronic metabolic acidosis which is associated with growth failure. All this is due primarily to the impairment of glucose utilization in these children.

In Type III and Type VI GSD there is a very similar, but much milder, problem because the enzyme deficiency is further upstream and their ability to release glucose is not completely impaired.

The muscle glycogen diseases represent a different form of energy impairment. Type V glycogen storage disease, originally called McArdle's

disease, is a deficiency in phosphorylase in muscle alone, as opposed to phosphorylase deficiency in the liver or in other tissues. Consequently, metabolism down the Embden-Meyerhof pathway and into the TCA cycle is greatly impaired in these patients. The symptom complex of a patient with muscle glycogen disease is as follows: easy fatigability, extreme muscle cramping and pain on exertion and myoglobinuria. In the normal individual who vigorously exercises, there is a temporary period in which the utilization of energy exceeds the available oxygen. This is possible in the normal individual because the Embden-Meyerhof pathway is anaerobic. With exercise energy is provided to the actively metabolizing muscle through the Embden-Meyerhof pathway. Lactic acid accumulates because, in the absence of oxygen, movement into the TCA cycle is impaired. An oxygen debt is built up. On resting there is a reversal of this problem. Available oxygen, from hyperventilation, oxidizes lactate back to pyruvate and through the TCA cycle. Persons with muscle glycogen disease cannot develop an oxygen debt because they cannot enter the Embden-Meyerhof pathway. Consequently, they have great impairment in energy utilization with physical activity. This results in pain and fatigue. These muscle symptoms are analogous to the effects of hypoglycemia on the brain.

Ketosis, another example of deranged energy metabolism, results when the amount of FFA in the circulation exceeds the capacity for its metabolism through the TCA cycle. This happens when there is an absolute overproduction of FFA with no impairment of the TCA cycle or when there is a primary impairment of the cycle so that FFA cannot enter. Ketosis is most commonly seen in starvation and diabetes. It would appear that in diabetic ketoacidosis, due to insulin deficiency, there is an increase in peripheral mobilization of fat and an over-production of FFA in the circulation. Secondarily, there is a slow-down of the tricarboxylic acid cycle activity. This then results in an increased shunting to ketone bodies and their accumulation in the circulation. In order to reverse this problem, of course, the individual must reestablish normal carbohydrate metabolism. In ketosis the body is staying too long with fat metabolism. The reversal of this pathway occurs when glucose is presented to the individual, with refeeding in starvation, or glucose is effectively delivered to the cell with the administration of insulin in diabetes.

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Metabolic Alterations in Diabetes Mellitus

Owen M. Rennert, M.D.

A knowledge of the biochemical pathways involved in the pathophysiology of diabetes is essential to develop a rational plan of therapy. Diabetes mellitus is a chronic affliction that can be traced back to ancient Hindu medical writings from 1500 B.C. This disease state was first accurately described by Aretaeus the Cappodocian in the 2nd century B.C. It was the English physician, Thomas Willis, physician to Charles II of England (1650), who first linked the sweet essence of urine to the pathogenesis of this affliction. He wrote:

> But in our age, given to good fellowship and guzzling down chiefly unallayed wine; we meet with examples and instances enough. Those laboring with this disease piss a great deal more than they drink or take of any liquid aliment; and moreover they have always joined with its continued thirst, and a gentle, and as it were hectic fever. The urine is wonderfully sweet as if it were imbued with honey or sugar—it is a running through of sweet urine.

Enlarging upon this definition of diabetes we might define it as a chronic metabolic disorder characterized chemically by hyperglycemia, glycosuria, an abnormality of insulin metabolism, a state of increased protein catabolism and an illness associated with episodes of acidosis and ketosis. Pathologically the manifestations are protean, exemplified by progressive degenerative disease of blood vessels affecting major viscera such as the kidney, eye, and central nervous system.

If it is viewed as a state of insulin deprivation, the immediate metabolic consequences of this state are: hyperglycemia, glycosuria, decreased synthesis of glycogen, proteins and fat and increased utilization of fat and protein as a source of energy.

In the normal state the ingestion of food results in the vascular transport of glucose, fatty acids and amino acids to the liver, brain, muscle, and adipose tissue. In the usual circumstance glucose is oxidatively metabolized to liberate energy. In addition, glucose in the liver is utilized in the synthesis of glycogen, which represents the major storage form of glucose. The initial phases of glucose metabolism involve certain key reactions, that is, the phosphorylation of glucose by hexokinase, the subsequent conversion to the diphosphorylated fructose derivative and the consequent formation of three-carbon units.

In the presence of insulin glycolysis is the favored path with the shunting of glucose into three-carbon units. Insulin is associated with increased levels of activity of three major enzymes: glucokinase, the enzyme responsible for the phosphorylation of glucose, 6-phosphofructokinase, the enzyme which ultimately leads to the formation of fructose-1,6-diphosphate and pyruvate kinase which results in the conversion of phosphoenolpyruvate to pyruvate. Pyruvate is then shunted into the Kreb's cycle via acetyl-CoA or may directly be shunted via the dicarboxylic acid cycle through oxaloacetate. During the state of insulin deprivation or deficiency, there is increased formation of glucose or increased gluconeogenesis due to inadequate utilization and entrance of glucose into cells. Absence of insulin results in increased activity of several enzymes that may be viewed as antagonists of the glycolytic pathway. These are: pyruvate carboxykinase, phosphoenolpyruvate carboxykinase, fructose-1,6-diphosphatase and glucose-6-phosphatase.

In the diabetic state there is increased gluconeogenesis. This effort by the organism to produce more glucose during insulin deficiency implies that the formation of glycogen is minimized. The enzyme glycogen synthetase is activated by insulin; hence, in the diabetic, the synthesis of glycogen is reduced.

If one views diabetes as the state of impaired glucose utilization and availability, or starvation in the midst of plenty, it is predictable that an increase in gluconeogenesis from amino acids will occur. Indeed, increased formation of glucose from amino acids such as alanine occurs and enzymes involved in gluconeogenesis are increased. Concordant with the increased synthesis of glucose by deamination of amino acids and increased urinary excretion of nitrogen there is mobilization of hepatic glycogen. These factors result in the increased body pool of glucose seen in the diabetic patient. When the renal threshold for glucose is exceeded, glycosuria and osmotic diuresis result.

Because of decreased shunting through glycolytic and other pathways decreased levels of reduced pyridine nucleotides such as NADH and NADPH necessary for metabolism via the Kreb's cycle occur. The reduced movement to the three-carbon

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pool from glucose and the increased demand on three-carbon fragments for gluconeogenesis result, in part, from the increased amounts of acetoacetyl CoA which are released as ketone bodies.

The derangement leading to increased ketone body formation or ketosis is largely a consequence of altered fat metabolism in the diabetic individual. As a sequela of the increased metabolic rate and reduced availability of glucose the movement of fatty acids from fat depots into plasma and thence to tissues where they are utilized as a main source of energy is promoted. Experimental evidence demonstrated that increased breakdown of triglycerides to fatty acids and glycerol occurs in the diabetic state. Even in the liver this adipose-liberated fat is utilized in part for energy and in part for further resynthesis of new fat or triglycerides.

The hepatic formation of lipids however is impaired in the diabetic. This may be accounted for on the basis of three observations: (1) a decreased supply of α-glycerophosphate as a consequence of decreased flow through the Embden-Myerhof pathway, (2) decreased production of citrate and isocitrate from the Kreb's cycle which stimulates liposynthetic pathways, and (3) the relative lack of reduced pyridine nucleotides necessary for fat synthesis. The increased movement of fat in the diabetic is accompanied by hypertriglyceridemia thought largely to be a consequence of decreased activity of lipoprotein lipase.

As previously mentioned, the diabetic state is accompanied by increased protein catabolism. In part, we may account for this as a result of the increased gluconeogenesis; however, it has been proven by both in vivo and in vitro studies that insulin has a direct effect on the protein biosynthetic apparatus. Insulin promotes the synthesis of certain proteins, especially enzymes such as glucokinase. Secondly, it promotes the transport of amino acids across cell walls and thus enlarges the pool for protein synthesis. Lastly, insulin affects the number of ribosomes or polysomes active in protein synthesis. An in vitro protein synthesizing system obtained from muscle of diabetic patients has fewer functioning polysome units. This suggests that insulin initiates the transcription of a regulatory protein that modifies ribosomes to make them effective.

Insulin has far-reaching effects on membranes beyond the transport of amino acids and also plays a vital role in the uptake by cells of fatty acids and cations such as potassium. In addition this polypeptide hormone influences the biosynthesis of the macromolecular acid mucopolysaccharides.

The mechanisms responsible for the abnormal pathophysiology of altered vascular permeability in diabetes are not yet clear. No unequivocal evidence exists that these sequelae may be prevented by vigorous control of the disease. In diabetic neuropathy, one sees changes affecting the cerebral cortex, the spinal cord, particularly the dorsal columns, and the peripheral nerves and autonomic nervous system. These changes may be attributed to the development of arteriosclerotic changes and episodes of iatrogenic hypoglycemia. Recent evidence indicates that insulin increases the utilization of glucose in spinal cord and nerves, and also increases the proportion of total cerebral oxygen consumption accounted for by glucose; and these processes, of course, are impaired in the diabetic. In diabetes the enzyme catalyzing the formation of acetyl-CoA, acetylthiokinase, is reduced; thus, the oxidation of two-carbon fragments is impaired, resulting in decreased incorporation into lipids and myelin. Lastly, impaired utilization of glucose results in increased shunting of this hexose to sorbitol and fructose (2-10 times normal) which adversely affects the function of peripheral nerves.

Two new observations relate to the pathogenesis of diabetes. Steiner and collaborators showed that two chains of insulin are derived from a single molecular precursor called proinsulin. This observation permits the postulation of several additional mechanisms whereby diabetes may arise. Another observation indicates that the diabetic individual has nonsuppressible hyperglucagonemia which suggests new avenues for the study of diabetes.

Methods for the study of the prediabetic and the heterozygote for diabetes are still limited; however, I wish to share with you observations of Littlefield and co-workers employing tissue-culturd fibroblasts. Their observations suggest that fibroblasts obtained from diabetics and their relatives can be propagated in tissue culture for fewer generations than those from normals. If this experiment is verified, it suggests an avenue for the in vitro study of the diseased and carrier states, as well as possible links to the process of advanced aging.

We are confronted with a disease that is ancient in its origins and recognition, yet left with the problem of determining its pathogenesis and etiology.

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The Natural History of Diabetes Mellitus

Arlan L. Rosenbloom, M.D.

Our discussion is going to be from a genetic standpoint, and it will lead us into consideration of the means of detecting the diabetic genotype, discussion of variation in the expression of diabetes in childhood, and finally, speculations on the potential for management of preclinical diabetes. Diabetes is a familial chronic disease of decreased insulin effect manifested by decreased utilization of glucose, related metabolic alterations, and small blood vessel changes.

Despite dissatisfaction with blood glucose as the discriminating factor in defining diabetes, we depend on inappropriate hyperglycemia to distinguish persons with diabetes mellitus from those without the disease. There are other biological markers of the genetic trait, but none are generally accepted or have not been shrouded in controversy from laboratory to laboratory. J. V. Neel has called diabetes the "geneticist's nightmare," and there are several reasons for this.

The basic defect inherited in diabetes is not known. Does a person destined to develop diabetes inherit the metabolic defect, the vascular disease, or are they genetically linked? The possibility of heterogenity is great. A few years ago Conn told us that the diabetes mellitus of patients with hyperaldosteroidism was due to potassium depletion and correctible by potassium replacement. Are we today in the study of diabetes where the physician of a hundred years ago was when he spoke of "the fever" as a single disease? When initially described, glycogen storage disease was thought to be a single entity, but subsequently it was found to be a heterogenous disorder due to at least 12 specific enzymatic defects.

Further difficulty encountered in genetic study of diabetes mellitus involves the great influence of environmental factors on the expression of this disorder. The age dependence of the frequency of diabetes is also a contributing factor in the genetic study, and finally, the definition of diabetes mellitus in chemical terms is not at all clear-cut and may in fact represent continuous variations within a normal population. It is not surprising, then, that at one time or another every genetic mode has been invoked as a possible mechanism for the inheritance of diabetes mellitus. Currently, diabetes mellitus is considered a heterogeneous and polygenic disease. By heterogeneous we mean that there are multiple primary defects with similar expression as glucose intolerance. Polygenic etiology means that there are numerous genetic sites involved and that these result in a variable defect depending on the number of sites and the environmental influences.

The polygenic and heterogeneous nature of diabetes is supported by the experience with spontaneous hyperglycemic syndromes in laboratory animals. In animals one sees autosomal dominant inheritance, autosomal recessive inheritance, and perhaps most applicable to man, polygenic inheritance. Within each variant there are variations in manifestations of obesity, vascular complications, and the occurrence of ketogenic or nonketogenic diabetes mellitus.

Since the glucose tolerance test remains the method for separating the diabetic from the nondiabetic population, we need to first define the stages of diabetes relative to glucose intolerance (Table 1). Prediabetes is not really a disease but the period from conception, when genetic constitution is determined, to the first appearance of a measurable manifestation of diabetes. Obviously this concept is a function of the sophistication of the investigator. In Table 1 an abnormal cortisol primed glucose tolerance marks the end of the prediabetic period. This is a useful research approach for looking at populations but has not been clearly defined as a diagnostic tool for the practitioner. With children the usefulness of the cortisol primed glucose tolerance test remains to be demonstrated but may be comparable to the abnormal tolerance which develops in some children treated with glucocorticoids or experiencing the stress of an illness. A patient may present with some vague intermittent symptoms and have an abnormal glucose tolerance, and the next time he is tested have normal tolerance even with cortisol priming. The

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TABLE 1.—STAGES OF DIABETES.

	STAGE	FASTING BLOOD GLUCOSE	ORAL GLUCOSE TOLERANCE	CORTISOL-PRIMED GLUCOSE TOLERANCE	SYMPTOMS
PRECLINICAL	PREDIABETES	NORMAL	NORMAL	NORMAL	NONE
	DIABETES				
	LATENT CHEMICAL, (EARLY CHEMICAL, EARLY LATENT)	NORMAL	NORMAL	ABNORMAL	NONE
	CHEMICAL (LATENT)	NORMAL	ABNORMAL	——	NONE OR VAGUE, INTERMITTENT (HYPOGLYCEMIC)
OVERT	NON-INSULIN DEPENDENT (MATURITY ONSET, NONKETOSIS PRONE, ADULT)	ABNORMAL	ABNORMAL	——	MILD
	INSULIN DEPENDENT (JUVENILE, GROWTH ONSET, KETOSIS PRONE)	ABNORMAL	ABNORMAL	——	SEVERE → KETOACIDOSIS

ketosis-prone patient can revert to total remission with no detectable glucose tolerance abnormality. This observation defies the concept of progressive ablation of pancreatic function and subsequent ketosis-prone diabetes. Thus, these classifications are not to be thought of as fixed for any one patient but as references for defining where patients are at any one point in time and for thinking about the natural history of diabetes mellitus.

The natural history of diabetes mellitus in childhood has traditionally been considered to involve the rapid development of the classic symptoms of polydipsia, polyphagia, polyuria, and weight loss with progression to ketoacidosis if untreated. In recent years investigators have looked at close relatives of persons with diabetes and they have noted that non-insulin dependent diabetes mellitus occurs commonly in children.

In 1965, our curiosity was aroused by two children with idiopathic hypoglycemia of infancy, each of whom had a parent with renal glycosuria. In studying these and eight other children with idiopathic hypoglycemia we found a remarkable frequency of familial diabetes mellitus by history and later identified in presumed normal members of these families by glucose intolerance. Testing the children who had outgrown their hypoglycemia, we were astounded to find that four of them had abnormal glucose tolerance. We ascertained previously unknown diabetes through the hypoglycemic proband on the side of the family where it had not been known to exist in four families. It had been known since 1956 that reactive hypoglycemia was a frequent presenting complaint in adults with mild diabetes mellitus. These children, however, had *fasting* hypoglycemia rather than reactive hypoglycemia.

With this experience we have looked more closely at children with mild symptoms suggesting hypoglycemia such as pallor, sweating, weakness, easy fatigability, headache, dizziness, and irritability, often with a history of relief by food and quite frequently with a strong family history of diabetes. We have identified chemical diabetes mellitus in eight such children (Fig. 1). The discovery of diabetes in children such as these and especially in the siblings of children with overt diabetes mellitus raises serious questions about the possible preventive treatment of this stage of diabetes.

Treatment of this stage of diabetes mellitus is based on several suppositions. The first is that a significant number of these children will develop

overt diabetes. Reports indicate that 15% to 25% of children with this stage of diabetes will develop overt diabetes mellitus over a ten-year span and a number of such instances have been described. Treatment is further based on the concept that decreasing glucose tolerance in these individuals is due to progressive pancreatic decompensation. Jackson's experience shows progressive diminution of insulin responses with progression of glucose intolerance. Fajans, on the other hand, described decreased insulin response at every stage of latent diabetes prior to overt insulin dependence.

Our own experience is consistent with that of Jackson's group, as shown in Figure 1. Children with borderline abnormality in their glucose tolerance have greater insulinemia than those with normal tolerance. This is also true of those with definite abnormality (chemical diabetes) but this group appears to have a delayed insulin peak. Those with overt diabetes are insulin deficient. These differences become more apparent when the insulin response is expressed in terms of the glycemic stimulus, the insulin/glucose ratio shown in the lowest panel of Figure 1. These data suggest that the mild stages of diabetes are not associated with decreased insulin release but with diminished insulin effect. Whether this represents peripheral resistance to insulin or an abnormal insulin measured in the immunoassay has yet to be determined.

The final supposition is that treatment may delay or prevent pancreatic decompensation. What are the forms of treatment that improve glucose tolerance? Diet is the first one that comes to mind, but most children presenting with chemical diabetes are thin rather than overweight. Insulin replacement in small doses has been used in the late stage of chemical diabetes to try to prevent pancreatic decompensation. It is much easier to treat diabetes before children get into ketoacidosis so that there is some experience and rationale for the use of insulin in the late stage of chemical diabetes. What about the early stages where the fasting blood glucose is such that the use of insulin would constitute a dangerous activity?

Sulfonylurea is the next modality to consider. The use of this drug is based on the evidence of its ability to protect the islets of experimental animals from the damaging effects of alloxan and on the evidence of insulin stimulation by this drug in man. Improved glucose tolerance has been demonstrated in young adults with chemical diabetes mellitus treated with the drug. Its effect in man, however, is not quite as simple as stimulating insulin or protecting the islets would suggest. In adults with chemical diabetes improved glucose tolerance was characterized initially by increased insulin responses but with persistent treatment the

Figure 1

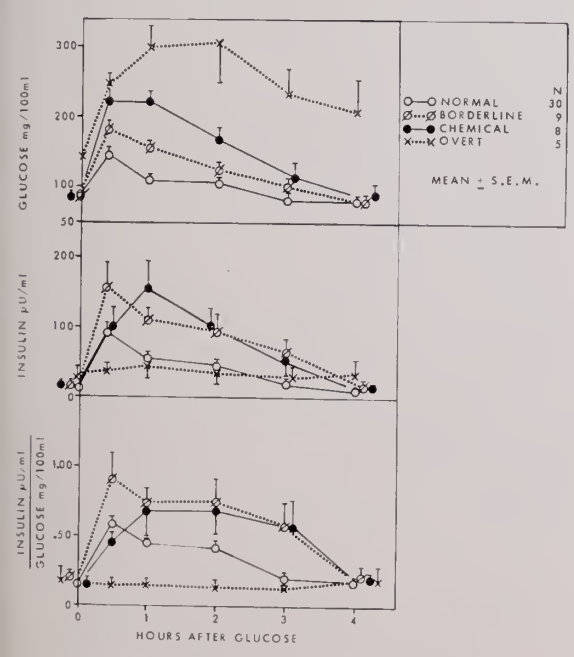
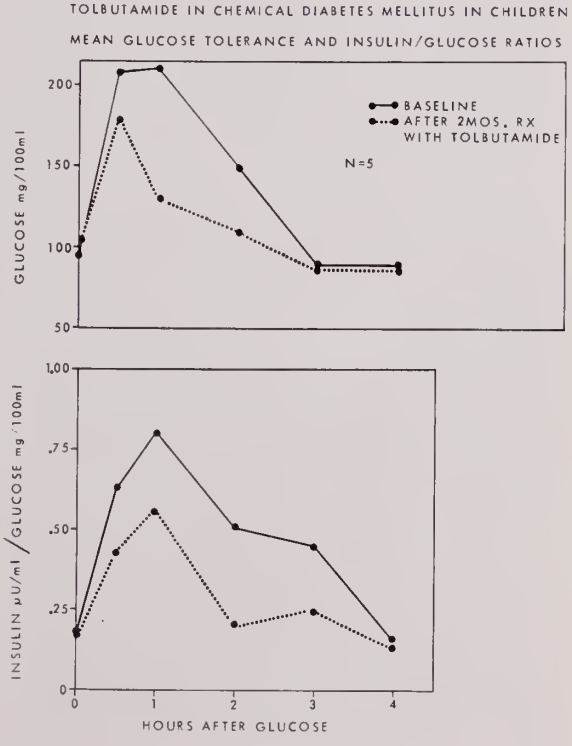


Figure 2



insulin responses returned to or below pretreatment levels despite persistence of improved glucose tolerance.

In our studies tolbutamide treatment was not associated with increased insulin response to oral glucose but with increased insulin effectiveness, suggesting a more significant peripheral than pancreatic effect (Fig. 2).

The use of biguanide, another form of oral therapy, is associated with as much uncertainty about mechanism of action. There is evidence for increased glucose turnover, decreased gluconeogenesis, decreased glucose absorption from the gut and decreased appetite. The effects of this drug on chemical diabetes mellitus in children are not known. Wilanski and Shochat several years ago described a very extensive well-controlled study in which they gave placebo and biguanide to the siblings of people with diabetes. These subjects had abnormal cortisol-primed glucose tolerance tests. A six weeks course of this drug significantly protected these individuals against development of overt diabetes mellitus for up to four years. After four years there was no significant difference between the control and treatment group in the rate of progression to overt diabetes. This might suggest potential usefulness in chemical diabetes in children.

The recognition of chemical diabetes mellitus in childhood and the potential approaches to alter the disturbed glucose/insulin relationships offer an exciting challenge. We cannot assume that amelioration can delay or prevent the progression to overt insulin-dependent disease. Carefully controlled studies of the effects of sulfonylurea or biguanide on the glucose metabolism and natural history of this disorder are sorely needed. Our efforts at the present time are directed toward identifying a sufficient number of such individuals to design a well-balanced study.

References may be obtained from the author upon request.

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Etiology of Diabetes

Donough O'Brien, M.D.

The gene defect in diabetes is not yet known and almost certainly there is much heterogeneity in the disease, as evidenced by such widely different clinical states as the Prader-Willi syndrome and lipo-atrophic diabetes.

A tremendous range of possibilities exists starting with the huge variety of potential impacts on the beta cell, mechanisms for release and degranulation within the beta cell, possible antagonistic actions to insulin, various insulin-like compounds, various events that can occur on the membrane to supplant insulin or change its effects at the cellular level. With all these possibilities, it is understandable that we are dealing with something more difficult to grasp than a single point mutation causing one metabolic defect.

General lesions of the pancreas could possibly cause diabetes and, as evidenced by its association with cystic fibrosis as part of the general destruction of the pancreas, pancreatitis. A very small segment of diabetes is a consequence of an explicit inflammatory etiology. The possible viral etiology of diabetes has always been discounted because of the argument that it seemed unlikely that a virus would affect beta cells and not the alpha and exocrine cells as well. However, with the acquisition of knowledge about slow viruses which can lie dormant in their effects for many years or take action over many years, it is possible that a virus, perhaps in itself not so destructive, can enter and produce both desirable information and undesirable information in a special cell. The discovery of a group of viruses, mostly single-strand RNA viruses, has upset the central dogma, namely that the DNA tells the RNA. These viruses have a DNA polymerase that is RNA dependent so that they can generate DNA which, in turn, forms RNA and translates it into internal protein. It is tremendously exciting that a virus can introduce its DNA into the mammalian genome. Myocarditis virus in mice has been shown to affect the pancreas. Additional reports have indicated that pregnant women who contracted rubella delivered babies who, in their second year of life, developed diabetes; there are five such cases reported. This is a very small group but it is, I think, one of some significance.

Insulin is formed as pro-insulin and becomes insulin on its way from the reticular network through the granule and then is released as a form of crystalline insulin into the circulation. There are many mechanisms to trigger this path—glucagon is probably the most potent. It is interesting that a number of diabetics seem to have resistance to glucagon in terms of insulin-release. Other drugs and agents stimulate insulin-release, e.g., glucose, but no one understands the precise mechanism. Probably it is mediated through cyclic AMP (adenosine monophosphate). This compound was originally studied in liver preparations where it was shown to stimulate the activation of phosphorylase and, therefore, the release of glucose from glycogen under a variety of stimuli, notably glucagon and epinephrine. Epinephrine has an opposite action of glucagon in the beta cell of the pancreas. In the pancreatic cell perhaps glucagon and other substances enter the cell or attach themselves by some complicated mechanism on the membrane which, in turn, releases AMP. The evidence is conflicting as to whether cyclic AMP promotes the synthesis of products of glucose metabolism within the cell and whether these are the major stimuli for the release of insulin. These considerations relate to the management of hypoglycemia in terms of the pharmacology of the release of insulin, for example, the treatment of some diabetics with beta-blocking agents. I think some important clues as to the etiology of diabetes will arise from these considerations, namely, that there is some aberration of the mechanism for normal release of insulin granules in the cell. This is applicable primarily to situations in which there are insulin granules in the cell. We know nothing at all about the curious aging phenomenon of the release of insulin in which at first there is an excessive excretion of insulin, then a delayed one and finally an indifferent or negligible one.

One of the exciting postulations related to the discovery of "pro-insulin" and/or "big insulin." Pro-insulin is a single chain wrapped around in a circle in which the two ends of the insulin chain are connected by a 30-odd member polypeptide, the C-peptide. This molecule is synthesized as a single

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chain and then curls itself up as it enters the granule and loses the extra peptide to become insulin.

The discovery of pro-insulin complicated the measurement of insulin by immunoassays since normal insulin antibodies reacted with insulin, pro-insulin and a lot of other fragments. One of the etiologies that has not been explored is whether there are circulating fragments of molecules that are somewhere between pro-insulin and insulin, and measurable by immunoassay as insulin, and that are biologically effective but not as effective as ordinary insulin. Pro-insulin is, approximately, 10% as biologically effective as insulin and the various fragments in between have varying biological activities.

Recently there have been reported successful immunoassays against pro-insulin and the connecting C-peptide. These investigations indicate that the amount of pro-insulin secreted in diabetics is a little higher than normals. It is proportionately a little higher, but it is still very small and seldom amounts to more than 14% or 15% of the insulin that is excreted. There is information to suggest that pro-insulin given intravenously has, in fact, very little biological activity, much less than on in vitro fat cells. It doesn't appear as if the complete single chain molecule is an important factor and no significant quantities of the intermediary products have been found in sera from diabetic people, except in islet cell tumors where enormous amounts of pro-insulin and the connecting peptide are produced. Connecting peptide is secreted in small amounts in diabetes but seems to have no specific biological activity.

Several years ago we were working on systems utilizing pork insulin, rat diaphragm and serum from patients. To measure the in vitro diappearance of insulin, we obtained serum from an untreated juvenile diabetic instead of a normal. The data indicated a very slow rate of destruction and with an adult serum the result was in the middle. Because the concentration of human insulin was small in relation to pork insulin, we looked for an inhibitor in the serum that was preventing insulin from attaching to the membrane. We found the same results using a cell particle-free extract of rat muscle which was presumably a crude insulinase. We wondered whether this was evidence of resistance of insulin to insulinase. Then we purified insulin from serum immunologically, that is, by binding with anti-insulin and then disrupting the anti-insulin complex and eluting the insulin. Employing this methodology with beef insulin, porcine insulin, and ordinary crystallized human insulin, we could demonstrate that the degree of destruction was very little. Using such techniques we could demonstrate that diabetics who had not received exogenous insulin for a number of hours had in their serum a mixture of beef or pork insulin, as well as their own insulin. So it looks at this stage as though there was a little evidence that something was wrong with the insulin itself.

If it is a familial disease, resistance to insulinase should indicate a genetic pattern. The parents, the juveniles and the normals are significantly different from each other but it is impossible to tell which group an individual assay falls into because of the wide overlaps. This technique may be useful to support the hypothesis of a simple Mendelian factor inheritance of juvenile diabetes but it is hopeless as a discriminant for a family study. We have examined the incorporation of precursor of RNA in fibroblast cultures under the influence of normal and diabetic insulin. This has proved to be a very good discriminate, since it shows quite significant differences between all of the diabetics, and the normals.

Recently we have been isolating pure insulin from pancreases. We have now examined 50 adult pancreases and 50 normal pancreases. We employ a system of gel filtration, electrofocusing and more gel filtration which yields an insulin with high specific activity, whose electrophoretic pattern, its sulfur content and other chemical measurements match normal crystalline human insulin preparations reported by others. Investigation of the rate of destruction by insulinase and also effect of intraperitoneal injection of insulin into a rat indicate clear differences between the normal and diabetic insulin preparations (Table 1). These data indicated a very significant correlation between resistance to insulinase and impaired biological activity, suggesting that insulin obtained from a sizeable number of diabetic pancreases, in about half the cases, does seem to have a different property. We have not so far detected any difference in the amino acid composition of the abnormal insulin or in peptide composition. This raises

TABLE 1.—INTRAPERITONEAL INJECTION OF INSULIN.

Insulin	Glycogen Synthesized c.p. mg.
Normal	42.2 ± 21.9 s.d.
Diabetic	24.4 ± 15.3 s.d.
	$p = 0.005$

an intriguing biological question as to whether you can have a molecule that is a different molecule but nevertheless is composed of the same amino acids put together in the same order. However, insulin can have different shapes in different situations. It is conceivable that if the C-peptide, the linking peptide, had the wrong shape it could convey onto the remaining insulin a sterically abnormal format which was thermodynamically stable. Bornstein has suggested that there are two fragments, oligopeptides derived from growth hormone that have contrary actions on an enzyme called pyruvate/carboxylase. It catalyzes pyruvate to acetyl-CoA which is the key fuel for the Krebs cycle. One of these peptides activates this enzyme and one depresses it. Bornstein is now synthesizing significant amounts of the activator peptide and there is some reason to believe that in the diabetic state promoting the activity of this enzyme can, in fact, considerably normalize carbohydrate metabolism for a given amount of insulin.

Lastly I shall talk about the potential role of trace metals in the etiology of diabetes. One of the earliest clues was the observation that administration of EDTA to juvenile diabetics would improve their tolerance to glucose while giving EDTA and for some time afterwards. Associated with this improved tolerance, there was a considerable diuresis of zinc. There was also a single case report of manganese deficiency or a manganese dependency, perhaps. Another work was in relation to chromium, diabetes, and hypoglycemia. A very small number of adults have been reported to have improved glucose tolerance following chromium administration. Chromium analysis of hair from juvenile diabetics, in a significant number of these children, reveals low amounts of chromium. Certain evidence has been reported that chromium is necessary for the attachment of insulin onto the membrane as may be other trace metals.

In summary, I think that diabetes is many diseases, many etiologies, and not all are heritable.

References may be obtained from the author upon request.

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Obesity and Diabetes in Childhood

Allan Drash, M.D.

Man until quite recently considered the obese woman as beautiful. The individual who was obese could endure much hardship, in terms of environmental stress such as cold as well as prolonged deprivation of food.

Obesity, however, is a disease in our culture. It carries with it increasing morbidity and mortality. If an adult is 65-80 lbs. in excess of normal or ideal body weight, the mortality rate is almost double that of the normal weight population. The increased mortality with obesity is due primarily to cardiovascular disease, but there are a variety of other problems associated with it. Approximately 80% of maturity-onset type diabetes occurs in obese individuals. On the other side of the coin 60-70% of grossly obese adults have "diabetes." It is not clear that the carbohydrate intolerance of obesity is the same disease as diabetes in the child.

Obesity not only carries with it increased morbidity and mortality. Obesity imposes a very definite impairment of function, manifested in diminished cardiac output, maximum ventilation and maximum breathing capacity, marked reduction in work capacity and psychological problems.

The insurance statistics have provided important insights into the problems of obesity. The question of "ideal body weight" is under careful scrutiny. "Ideal body weight" is derived from the general American population. This derived weight for height may not be "ideal" from a health point of view. The standard insurance definition of obesity is body weight 25% in excess of "ideal" for height. It is important to realize that weight is not the absolute indicator of obesity. A professional athlete, weighing 250 lbs., may be in excellent physical condition with a total fat content below that of individuals of "normal weight." Obesity really means accumulation of excess adipose tissue. There are a variety of ways of quantitating this. One is underwater weighing. By determining the specific gravity of the body in air and underwater, the fat content of the body can be accurately determined. A very simple technique for estimating body fat content is the measurement of skin fold thickness with skin calipers. These measurements are well correlated with total adipose tissue. Obesity, then, is an accumulation of excessive body fat and this is associated with increasing morbidity and mortality in the adult population.

What is the incidence of obesity in our population? Approximately 25% of adolescent girls are overweight by the definitions we have given and somewhat fewer, about 12-15%, of the adolescent boys are overweight. Among adults over 50 years of age, over half the women and only slightly less than half the men are obese.

Obesity in childhood may present as part of a characteristic syndrome. The Pickwickian syndrome is an acquired disease secondary to obesity. It was named after the fat boy in Dickens' papers who was constantly sleeping. Lethargy in this condition is due to CO_2 narcosis, resulting from inadequate ventilation because of excessive weight on the chest wall. Grossly obese people are in respiratory jeopardy when they develop mild pulmonary illnesses. We have seen several obese children develop cyanosis and central nervous system depression secondary to hypoxia in association with bronchitis or laryngitis.

Brain-damaged children may be grossly obese as the result of disturbed appetite mechanisms or habit patterns. The Laurence-Moon-Biedl syndrome is a well-defined syndrome in which obesity is an integral part.

The Prader-Willi syndrome is another in which obesity is a prominent feature along with short stature, mental retardation, hypogenitalism and characteristic facies. An increased incidence of diabetes mellitus has been described. I am not certain that diabetes mellitus is an integral part of this syndrome. In our own series 40% of grossly obese, otherwise normal adolescents have carbohydrate intolerance. Diabetes in the Prader-Willi syndrome may simply be carbohydrate intolerance secondary to long standing, severe obesity.

In patients who are operated on for craniopharyngioma, obesity almost invariably results. Rarely are these children obese when seen prior to surgery. The postoperative obesity is analagous to the obesity induced in rats following specific

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hypothalamic damage. This produces a marked increase in appetite. These children commonly decrease their physical activity as well. This combination, the increased appetite and decreased physical activity, obviously leads to obesity.

Obesity in childhood associated with endocrine abnormalities is very rare. There is only one endocrine disorder that specifically causes obesity in childhood—Cushing's syndrome, and it is associated with impairment of linear growth. The child with exogenous obesity is usually tall. His bone age is advanced and his rate of sexual maturation is early. In obesity associated with Cushing's syndrome, the child's growth rate falls, and bone age is retarded. If the child is growing well, with observations over a period of time demonstrating normal or accelerated growth rate, the obesity is not due to a glandular disturbance.

Hypothyroidism as a cause of obesity in childhood is a myth. Obesity is not a significant feature of hypothyroidism in the child and I doubt seriously that it is in the adult population, although there are probably hundreds of thousands of fat ladies who take thyroid hormone.

Etiology of Obesity

Weight accumulation occurs when the intake of calories exceeds the expenditure. This definition is about as useful therapeutically as defining alcoholism as an excessive ingestion of alcohol. Both statements are true but not helpful. A more useful approach questions whether the obese individual's metabolic system is different than that of the person who does not have obesity.

Most obese individuals are convinced that their "metabolism" is different. The story that we repeatedly hear from mother and child is that it is simply impossible for the patient to lose weight, regardless of caloric restriction. This is, of course, untrue. The obese individual utilizes the same metabolic pathways as the nonobese individual. Their basal metabolism is the same. The utilization of energy, if anything, is greater for a given amount of physical work because they are carrying a heavier load.

The next question would be whether the obese individual expends less energy. The answer is a resounding "Yes." Most obese individuals are physically very inactive. Some fascinating studies that Dr. Felix Heald carried out at his summer camp for obese girls in New England demonstrated this quite graphically. In analyzing motion pictures of these girls at play they found that the fat girl was extraordinarily efficient. For example, the average-weight child playing volley ball is jumping around and moving all the time while the fat girl stands and waits for the ball to come. Her expenditure of energy is reduced to a minimum. This occurs psychologically as well. They do not interact, they observe the environment.

Metabolic Studies

In Table 1 is presented fasting blood concentrations of glucose, insulin and growth hormone in normal children, asymptomatic siblings of diabetics, and obese children with and without carbohydrate intolerance. The fasting blood glucose values are definitely higher in the obese. Although the differences are not great, they are statistically significant. The important differences, however, are in terms of insulin values. Basal insulin concentration is far higher in obese than nonobese. There are no statistical differences in basal growth hormone values. We have studied 18 children approximately 100% overweight for ideal body weight for evidence of carbohydrate intolerance. There were seven children discovered to have asymptomatic chemical diabetes. In only three of these was there a positive family history of diabetes.

Figure 1 compares a standard oral glucose tolerance test in normal controls and obese adolescents. The insulin responses in the obese children are markedly enhanced following the glucose load.

Table 1.—Fasting Values: Comparison of Normal, Diabetics, and Obese.

	Glucose mg%		Insulin μU/ml		Growth Hormone mμg/ml	
	N	Mean ± SE	N	Mean ± SE	N	Mean ± SE
Normal	158	76 ± 2.6	79	15.3 ± 1.1	58	2.5 ± 1.0
D.M. Sib—Normal GTT	27	75 ± 1.6	27	11.2 ± 1.2	27	4.1 ± 0.5
D.M. Sib—Abnormal GTT	46	81 ± 1.3	46	14.6 ± 1.0	46	4.1 ± 0.3
New Diabetes	97	270 ± 13	81	10.0 ± 0.6	76	3.8 ± 0.9
Obese—Normal GTT	47	81 ± 1.5	54	30.0 ± 2.0	52	3.2 ± 0.4
Obese—Abnormal GTT	32	83 ± 2.2	32	21.0 ± 1.8	27	2.7 ± 0.6

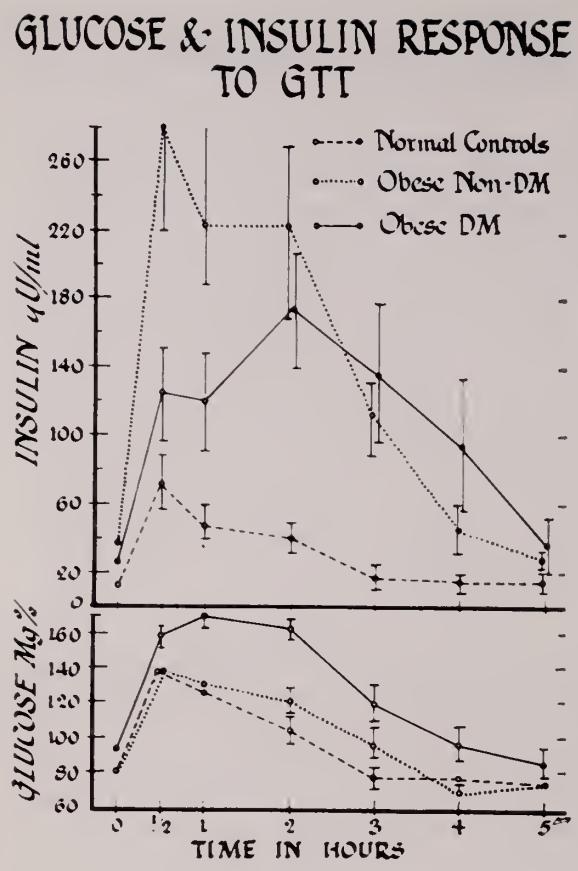


Figure 1

Those obese children who have chemical diabetes or carbohydrate intolerance do not make as much insulin as the obese with normal glucose responses. This is an excellent illustration of insulin resistance; marked insulin levels in the face of carbohydrate intolerance. There is peripheral resistance to the action of insulin in obesity.

Insulin responses to glucagon are grossly elevated in obesity also and they are higher in those children who have normal carbohydrate intolerance than those obese children who have chemical diabetes. The same phenomenon is seen also with arginine infusion.

Growth hormone response to arginine in the obese is markedly blunted. We have yet to see a grossly obese adolescent male who released normal amounts of growth hormone. Adolescent or adult females normally release much greater amounts of growth hormone than do men or pre-adolescents of either sex. We find that obese adolescent girls release growth hormone at a level comparable to the normal pre-adolescent population.

Conclusions

Obesity is a major health problem in this country. The pediatrician must begin taking responsibility for obesity in his practice. The chubby, fat baby may be attractive but he is not healthy and he is certainly not going to be healthy in the future. It is the fat child who becomes the fat adult and who dies prematurely with cardiovascular disease and hypertension. We pediatricians must accept responsibility for nutritional supervision. The tendency toward obesity should be detected and interrupted during the first year of life. Babies get excessively heavy because they are allowed to take in more food than they need. These eating patterns can be established very early in life. The adolescent or adult obese patient is extremely difficult to work with because his approach to food has been so firmly established over a period of years.

From a practical therapeutic point of view, 3500 calories can be considered equivalent to about a pound of fat in the body. The ingestion of 500 calories a day in excess of needs will lead to a gain of one pound a week. Conversely, if caloric intake is reduced by 500 calories a day below absolute caloric needs, there will be a loss of one pound weekly. If one eats one slice of bread, 60 calories, in excess of absolute nutritional requirements, he will gain 5 to 6 lbs. a year and in ten years have gained 60 lbs. It is surprising that we are not all grossly overweight.

Obviously there must be an extremely refined homeostatic mechanism for energy regulation in those of us who are fortunate enough to be of normal weight. Most of us really don't worry very much about whether we eat one slice of bread more or less. My own bias in terms of etiology of much of the obesity we see is that these unfortunate people have lost the hypothalamic control mechanisms. They do not have an endocrine disease. They have a blunting of the normal control mechanisms that tell them when to stop eating. These people should not be condemned because they are slovenly and lack character but they need to be helped. They need to be detected early in life. They need to be re-educated to the realization that good health for them requires constant, careful observation of caloric intake and regular physical activity. They need very specific dietary directions and firm, but warm and sympathetic guidance by their physicians.

References may be obtained from the author upon request.

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Acute Management of Diabetic Ketoacidosis

Owen M. Rennert, M.D.

There are a variety of regimens for treatment of diabetic ketoacidosis. I will present one protocol to illustrate some of the problems and considerations.

In general, the most common causes of diabetic ketoacidosis in the known diabetic are: failure to take insulin and concurrent or intercurrent infection which upset homeostasis, a number of situations such as severe trauma and emotional stress and lastly, chronic severe overinsulinization in the patient with repeated hypoglycemic reactions leading to glycogen depletion of the liver and severe ketoacidosis disproportionate to the extent of glycosuria or hypoglycemia. The patient with diabetic ketoacidosis exhibits significant depletion of water and electrolytes.

I shall first consider electrolyte loss. As a consequence of increasing blood glucose concentration, there is an extracellular fluid shift with resultant movement of water out of the cellular compartment causing dilution mainly of sodium salts. This event is in part responsible for the hyponatremia and hypochloremia seen. Sodium depletion is also a sequela of urinary and/or gastrointestinal losses. Rarely, severe hyperlipemia, as seen in acute xanthoma diabeticorum, may contribute by causing fictitious hyponatremia. Indeed, in the severely dehydrated, acidotic patient there is a profound degree of water loss, and the hyperglycemia may be associated with hypernatremia and/or hypochloremia. This is usually seen with very high levels of blood glucose in the range of 700-1500 mg.%. In such cases the diabetic coma may be without ketoacidosis and the coma may be attributed to hyperosmolarity and profound cellular dehydration. The major cause of sodium, chloride and water depletion is osmotic diuresis secondary to glycosuria. The concentration of sodium in the urine is approximately 50-100 milliequivalents (mEq) per liter but may be as low as 10-25 mEq per liter. This pattern of sodium deficiency is characteristic during any severe osmotic diuresis and is associated with a hypotonic urine with respect to sodium and chloride. Potassium, on the other hand, is much less affected by osmotic diuresis.

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The major causes of potassium depletion are: (1) protein breakdown—approximately 3 mEq of potassium are lost per gram of nitrogen formed; (2) glycogen depletion—1 mEq of potassium is lost per 3 grams of glycogen; (3) cellular dehydration increasing potassium depletion; (4) 10-20 mEq of potassium are lost per liter of vomitus. Increased aldosterone secretion has been implicated as a cause of potassium depletion in diabetic ketoacidosis. Despite the marked deficit of potassium, serum potassium concentration may frequently be normal or elevated. This is a consequence of the metabolic acidosis per se. Secondly, it is a consequence of a defect in the mechanism that maintains the potassium gradient between cells and extracellular fluids, and thirdly, it may reflect renal impairment due to loss of vascular volume, hypotension and intrarenal vasconstriction. The presence of a *low* serum potassium in the acidotic patient prior to therapy indicates a profound degree of potassium depletion.

The water loss in diabetic acidosis is one of the most severe forms of hypotonic dehydration and may lead to extreme intracellular depletion in fluids. Shrinkage in vascular volume with resultant impaired renal function and ischemia can be heralded by transient albuminuria and granular casts, which may be erroneously attributed to underlying renal disease.

In the treatment of diabetic acidosis, what immediate measures must be taken? The patient should have blood drawn for serum chemistries. This should include a BUN and if the patient presents with symptoms of impending shock, his blood should be crossmatched. As a practical point, the same needle that is used to withdraw blood should be used for the intravenous infusion of fluids. One may use an infusion fluid of physiologic saline, or lactated Ringer's solution, depending on the severity of the patient's condition. A variety of other fluids have been recommended ranging from quarter normal saline to half normal saline or saline with 5% glucose. Since water and salt losses are hypotonic, a net hypotonic replacement should be given. Failure to use hypotonic replacement will result in hypernatremia which will prevent rehydration of cells, and renal excretion of excessive salts will cause a sustained osmotic diuresis. In patients with shock either physiologic saline or Ringer's solution should be em-

ployed since an isotonic solution is required to support the extracellular space.

The second order of concern in management of the acute diabetic crisis is insulin therapy. Depending on the severity of ketoacidosis, one to three units of regular insulin per kilogram of body weight may be used intravenously when the diagnosis is established. Criteria necessary in establishing the diagnosis in the known diabetic patient are hyperglycemia and ketoacidosis. In a patient not known to have diabetes, the demonstration of glycosuria and of plasma acetone levels in the range of 4+ are adequate criteria for the institution of insulin therapy. The insulin as a matter of preference should be given intravenously. Half of the initial dose may be given subcutaneously if the patient's condition is good.

It is mandatory that a protocol to follow the progress of the patient be made. Plasma acetone should be checked every hour until no longer detectable. Vital signs should be checked frequently, particularly in the initial phases of the management of diabetic ketoacidosis. In the patient with shock, treatment with isotonic fluids, blood or Levophed, if needed, is appropriate. If shock appears after 4-5 hours of therapy, then one should consider at least two other potential complicating factors, septicemia or induced hypokalemia. Both intake and output must be carefully monitored and the patient's urine should be checked for sugar and acetone every two hours. It is equally important that an EKG be obtained to monitor fluctuations of potassium. In instances in which there is abdominal distention and vomiting, continuous gastric suction should be employed. Further therapy demands the continued and repeated observation of glycemia and serum electrolyte concentrations at four hourly intervals until acidosis is under control.

Replacement therapy and maintenance are individualized, and require calculation of the replacement of water and electrolytes on the basis of the degree of loss as with any other kind of dehydration. The type of fluid used is determined by the patient's condition: hypotension, turgor, neck vein tonus and hemoconcentration are the best guides.

Much controversy has arisen in the past few years with regard to the use of alkali solutions in diabetic ketoacidosis. In severe acidosis this may be considered a necessary part of the fluid regimen. The preferred solution is sodium bicarbonate. However, there are still a number of clinicians who prefer lactate. The institution of alkalization therapy is dependent upon the degree of acidosis and should be considered in the patient who presents with a serum CO_2 content of less than 5 mEq/L.

Potassium fluctuations occur when the blood sugar begins to fall. Hypokalemia is monitored by the EKG or serum measurement. Potassium replacement should be instituted within the first 2-4 hours provided urine output is adequate. Examination for hyporeflexia, decreased intestinal motility and muscular weakness identifies hypokalemia. In most cases there is no need to replace more than 25-50% of the potassium deficit within the first 24 hours. In the absence of nausea and vomiting and in a patient with a mild degree of ketoacidosis, potassium may be given as oral preparations.

Glucose therapy should be instituted as soon as blood sugar starts to fall or if there is an improvement in the serum acetone. When the blood sugar drops very rapidly, 5% dextrose solutions may not be adequate and more concentrated dextrose solutions may need to be used.

The use of fructose as a source of sugar not requiring insulin for cell entry has been proposed in patients with diabetic ketoacidosis. It should be pointed out that fructose is not utilized by the central nervous system and it is generally of little value unless interconverted to glucose. An adjunctive sugar that may ultimately be recommended in the treatment of the diabetic is mannose. In the past six months, several papers have indicated that mannose is the only other major carbohydrate utilized by the central nervous system besides glucose.

As the patient's condition stabilizes, the question arises of what additional forms of insulin therapy are appropriate. Serum acetone should be checked hourly using the tablet or impregnated strip. Insulin can be given intravenously as frequently as every 1-2 hours until there is significant improvement in the degree of serum acetone or the blood sugar begins to fall. When serum acetone becomes negative or blood sugar falls below 150-200 mg.%, insulin is administered subcutaneously at 4-6 hour intervals based on the degree of glycosuria. The patient should be fed frequently during this time since large amounts of insulin given previously may produce a hypoglycemic reaction 18-36 hours after the last dose. The physician must also employ appropriate treatment for the patient who has concurrent infections such as pneumonia or urinary tract infections.

References may be obtained from the author upon request.

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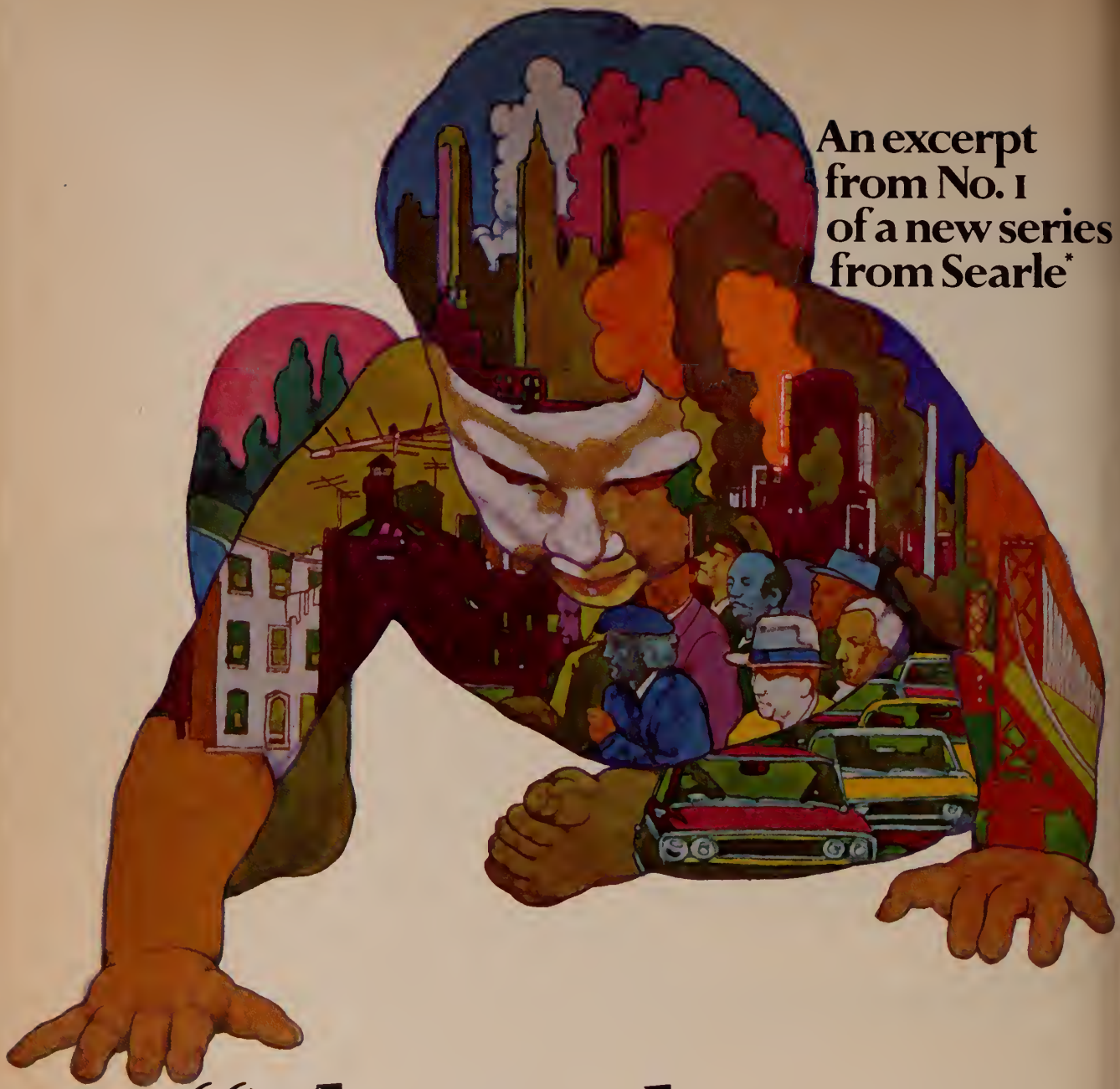
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Chicken Gumbo	48	Cream of Chicken	76
Chicken Noodle	54	Cream of Mushroom	115
Cream of Potato	58	Green Pea	116
Chicken Vegetable	60	Cream of Shrimp (Frozen)	132
Vegetable Beef	66	Bean with Bacon	133

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Special note: Oral contraceptives have been marketed in the United States since 1960. Reported pregnancy rates vary from product to product. The effectiveness of the sequential products appears to be somewhat lower than that of the combination products. Both types provide almost completely effective contraception.

An increased risk of thromboembolic disease associated with the use of hormonal contraceptives has now been shown in studies conducted in both Great Britain and the United States. Other risks, such as those of elevated blood pressure, liver disease and reduced tolerance to carbohydrates, have not been quantitated with precision.

Long-term administration of both natural and synthetic estrogens in subprimate animal species in multiples of the human dose increases the frequency of some animal carcinomas. These data cannot be transposed directly to man. The possible carcinogenicity due to the estrogens can be neither affirmed nor refuted at this time. Close clinical surveillance of all women taking oral contraceptives must be continued.

Indication—Demulen is indicated for oral contraception.

Contraindications—Patients with thrombophlebitis, thromboembolic disorders, cerebral apoplexy or a past history of these conditions, markedly impaired liver function, known or suspected carcinoma of the breast, known or suspected estrogen-dependent neoplasia and undiagnosed abnormal genital bleeding.

Warnings—The physician should be alert to the earliest manifestations of thrombotic disorders (thrombophlebitis, cerebrovascular disorders, pulmonary embolism and retinal thrombosis). Should any of these occur or be suspected the drug should be discontinued immediately.

Retrospective studies of morbidity and mortality conducted in Great Britain and studies of morbidity in the United States have shown a statistically significant association between thrombophlebitis, pulmonary embolism, and cerebral thrombosis and embolism and the use of oral contraceptives. There have been three principal studies in Britain [1-3] leading to this conclusion, and one[4] in this country. The estimate of the relative risk of thromboembolism in the study by Vessey and Doll[3] was about sevenfold, while Sartwell and associates[4] in the United States found a relative risk of 4.4, meaning that the users are several times as likely to undergo thromboembolic disease without evident cause as nonusers. The American study also indicated that the risk did not persist after discontinuation of administration, and that it was not enhanced by long-continued administration. The American study was not designed to evaluate a difference between products. However, the study suggested that there might be an increased risk of thromboembolic disease in users of sequential products. This risk cannot be quantitated, and further studies to confirm this finding are desirable.

Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions medication should be withdrawn.

Since the safety of Demulen in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule the possibility of pregnancy should be considered at the time of the first missed period.

A small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The long-range effect to the nursing infant cannot be determined at this time.

Precautions—The pretreatment and periodic physical examinations should include special reference to the breasts and pelvic organs, including a Papanicolaou smear, since estrogens have been known to produce tumors, some of them malignant, in five species of subprimate animals. Endocrine and possibly liver function tests may be affected by treatment with Demulen. Therefore, if such tests are abnormal in a patient taking Demulen, it is recommended that they be repeated after the drug has been withdrawn for two months. Under the influence of progestogen-estrogen preparations preexisting uterine fibromyomas may increase in size. Because these agents may cause some degree of fluid retention, conditions which might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. In breakthrough bleeding, and in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In undiagnosed bleeding per vaginam adequate diagnostic measures are indicated. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. Any possible influence of prolonged Demulen therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving Demulen therapy. The age of the patient constitutes no absolute limiting factor, although treatment with Demulen may mask the onset of the climacteric. The pathologist should be advised of Demulen therapy when relevant specimens are submitted. Susceptible women may experience an increase in blood pressure following administration of contraceptive steroids.

Adverse reactions observed in patients receiving oral contraceptives—A statistically significant association has been demonstrated between use of oral contraceptives and the following serious adverse reactions: thrombophlebitis, pulmonary embolism and cerebral thrombosis.

Although available evidence is suggestive of an association, such a relationship has been neither confirmed nor refuted for the following serious adverse reactions: neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis.

The following adverse reactions are known to occur in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea during and after treatment, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post partum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals and mental depression.

Although the following adverse reactions have been reported in users of oral contraceptives, an association has been neither confirmed nor refuted; anovulation post treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption and itching.

The following laboratory results may be altered by the use of oral contraceptives: hepatic function: increased sulfobromophthalein retention and other tests; coagulation tests: increase in prothrombin, Factors VII, VIII, IX and X; thyroid function: increase in PBI and butanol extractable protein bound iodine, and decrease in T^3 uptake values; metyrapone test and pregnanediol determination.

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Chronic Management of Diabetes in Children

Donough O'Brien, M.D.

All roads lead to Rome and in the same way I think that there are many good ways to treat diabetics and I will simply present my way. You will find that there are strong protagonists for other approaches.

First I would like to define my goal as achieving control. Control in turn consists in maintaining a healthy, well adjusted, growing child with negligible periods of either acidosis or hypoglycemia, who doesn't excrete ketones in the urine and whose glucose excretion is <8 grams per square meter per 24 hours with urine glucose varying between 0 and 2+ with an occasional 3+ (750 mg./C) using Clinitest tablets.

The first matter I would like to talk about is education. I talk to the family and the child informing them that diabetes is a disease of insulin deficiency and that insulin therefore has to be replaced, trying also to explain that supplying insulin exogenously isn't sufficient and discuss adjustment of diet and explain the relationship between the food they take in and the insulin they get. This usually has to be gone over a number of times. Our nutritionist explains problems of diet, what is fat, what is carbohydrate and what is protein and what this means in terms of commonly used family foods. We try to aim for a good varied diet and one that will provide the same sorts of food at the same time each day using the exchange system. It is also important to make sure that people know how to test their urine and how to keep proper records. I remember two pitfalls in this area. Once after I had been giving my usual sermon about keeping proper records one girl came up with a beautifully kept record until I realized it was filled out for several weeks in advance. Then there was another amiable lady who always produced the same rather battered record every visit. I shall not elaborate on education because all of you have had experience of it, but I think keeping constantly in touch with the family about diabetes, how it should be managed and whether they understand all that they are doing is really very important.

The next point after education would be what kind of insulins to use. I am, first of all, a strong believer in getting children on long-acting insulins just as soon as possible. I personally prefer the Lente insulins, with or without regular, because I think they are much less likely to produce subcutaneous fat necrosis or tumors and over the long haul you, perhaps, achieve better control than other adequate mixtures such as regular and Globin, and regular and NPH. In the great majority of cases you need only one dose of insulin a day and, although the regimen of twice-a-day soluble insulin is extraordinarily effective, I think it wrong to give children two shots a day unless you have to. With Lente insulins if you change from other regimens I have found that one requires 1¼ to 1½ times as much insulin as with regular and NPH. I have also found that equal amounts of Semilente and Ultralente is a better combination for the great majority of children than Lente alone. I don't discount some of the other regimens but this is the one I prefer.

Oral hypoglycemic agents should not be used in the conventional childhood diabetic because they are seldom effective and the biguanides may lead to lactic acidosis. I am not talking about the obese, adult-onset teenage girl type of diabetes nor preclinical diabetes.

For these reasons I resist the temptation to use oral medication at the time of the first dip in insulin requirements. I also think taking children off insulin interrupts your educational program which centers around insulin and what it does, and it interrupts the child's ability to manipulate insulin according to needs, and to feel confident with doing this. Lastly, it gives parents and the children a false promise that perhaps they will not require daily injections and with very few exceptions, they do.

I have found that most nutritionists' and dietitians' education in diabetes has been dominated by the adult world, where diet and calorie restriction is of special importance, especially in noninsulin requiring cases. Their tendency is to immediately say to the mother, "Well, he is on an X or Y 100 calorie diet and please stick rigidly to it." I believe very differently from that. I think diet should be regulated, but it need not be

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weighed. I think the first thing to do is to find out what kind of a meal regimen this family is having. If it seems to your nutritionist that this is a sensible amount of calories per diem for the child in relation to known norms, and if the distribution of carbohydrate is 45-55% of calories, fat 35-40% and protein about 15%, then I feel rather strongly that this is the diet you should accept and you should adapt control to the food this family is used to. Obviously this is an oversimplification of the exchange principle and means that they have to understand what foods are equivalent and what things like certain fruits and so on which they don't have to worry about. I have found that the business of accepting some sort of restrictions in what they eat, in other words, trying to eat the same kind of things every day is a very easy one for boys. In other words, if you leak a little bit of extra glucose, well, that is unimportant. You might just as well not have that bit of glucose but I don't think it is metabolically wrong unless you build in a situation where the active sites for insulin are unsaturated. You may disagree with me, but I think it is reasonable to be tolerant in the interests of making children not feel overburdened by this disease in relation to their diet.

As far as complications go, by far the most common setting for episodes of acidosis are children whose families are themselves in a state of considerable emotional turmoil. Certainly most of the cases I have seen go on like this for several years and when they enter their late teen years and go to work they seem to emerge from it. My plea is to the physician to deal with these problems and not to bring in another person to cope with the emotional problem while you simply come up with a dose of insulin. Resistance to insulin is a very uncommon thing in children. There have been reports of children, not very young children, but 14 or 15 years old who have been on several thousand units of insulin a day but it is very unusual to require more than 100 units a day for any diabetic under the age of 18. The build-up of antibodies for some reason does not seem to assume eminence as a problem during that age.

There are two problems seen rather commonly, the first is what is called the Somogyi effect. The situation in which a patient appears to be hyperglycemic and glucosuric so the physician gives more insulin and this produces a degree of hypoglycemia that may not produce very much in the way of symptoms, so the child is given more insulin and this produces a degree of hypoglycemia which in turn produces reactive hyperglycemia from hypersecretion of catecholamines. This diminishes the peripheral utilization of glucose at the same time, so what happens in effect, is that you give more insulin and you get more hyperglycemic and more glucosuria. This is something that all clinics see from time to time and reduction of insulin reduces the hyperglycemia and the glucosuria.

Tumors are cosmetically annoying and can often be coped with by keeping the insulin out of the refrigerator and they are uncommon with Lente insulins. Chronic diarrhea may occur in older diabetics and exudative enteropathy has been reported.

Finally, although there is too little experience with it, beta-blocking agent may be useful in some of the childhood brittle diabetics. It is known theoretically that catecholamines are particularly prone to produce ketosis and acidosis in the diabetic person and, therefore, it has been argued that perhaps in these children beta-blocking agents, such as Propanolol, might be worth a trial. Presumably what this does is inhibit the tendency of catecholamines to release fatty acids from the fat depots which, in turn, inhibit pyruvate kinase and enhance glyconeogenesis and thus promote ketoacidosis and hyperglycemia. There have been half a dozen or so cases reported with good effect.

In summary, my philosophy for chronic management is to achieve control; having said what this is, I think continuing education and rapport with the family is tremendously important. I believe insulin is the mainstay of treatment and I believe that you should have an exchange diet that is nutritionally appropriate but otherwise not rigidly regulated. I think that, by far, the most important complications derive from emotional problems that some families, particularly underprivileged ones get into, or at the other end of the spectrum relate to administration of too much insulin. Looking after diabetes in children is very rewarding, and I hope that what I have said will encourage most of you to take on this task yourselves.

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Metabolic Effects of Glucagon

J. H. Londono, M.D.

The metabolic actions of glucagon in the liver and adipose tissue affect the maintenance of an adequate and stable glycemic level in the extracellular fluids. Other actions of glucagon relate to interhormonal balance with glucagon mediating biochemical processes involved in the regulation of hormonal secretions.

Glucagon has been used clinically to alter the course of hypoglycemic states and to treat cardiac failure patients. The hormone also has been used in the diagnosis of glycogen storage diseases, medullary carcinoma of the thyroid, pheochromocytoma and hypoglycemic conditions.

Glycogenolysis and gluconeogenesis are essential biochemical processes in the mammals' life as they maintain the continuous flow of glucose to the brain, the muscle and other vital organs. Glycogenolysis is a rather simple energy producing system which is inhibited by insulin and activated by glucagon and epinephrine. When activated, a series of enzymes depolymerize liver glycogen to glucose-6-phosphate which in turn will be broken down to pyruvate producing 12 high energy bonds.

Gluconeogenesis is an elaborate biological system under the influence and regulation of multiple factors (cortisol, growth hormone, insulin, fed or starve states, diabetes, etc.), but the nature and characteristic pathways regulated by glucagon are as yet unclear. Whether glucagon increases the precursors of glucose in the peripheral tissues, enhances the uptake of those precursors by the liver or both is difficult to substantiate. There is evidence that glucagon increases uptake of gluconeogenic precursors by the liver but also that glucagon participates in the breakdown of protein in the peripheral tissues. The gluconeogenic effect of glucagon on adipose tissues is not yet clear. The free fatty acids are broken into acetyl residues and incorporated into the Krebs cycle and thence into pyruvate through the oxaloacetate-aspartate shunt. Glucagon effect on gluconeogenesis can be summarized as shown in figure 1.

Glucagon is a lypolytic agent able to split esterified fatty acids into glycerol and free fatty acids (FFA). Glucagon exerts a rapid direct stimulatory effect on gluconeogenesis from lactate, pyruvate and amino acids (especially alanine). Glucagon also appears to activate the citrate cycle (Krebs cycle) between glutamate and succinate. It also increases transport of alanine, lysine and aminobutyrate into the liver cell. Glucagon increases glucose and urea production by the liver, indicating amino acid deamination and incorporation of residues into the glucose pool.

Glucagon probably has little or no direct effect on protein catabolism in the peripheral tissues, but by stimulating secretions of catecholamines (adrenalin), it might to a certain extent increase circulating amino acids. In muscle adrenalin increases α-aminoisobutyrate accumulation and partially abolishes protein formation. There is also evidence that the alanine cycle is activated by glucagon and epinephrine in both liver and peripheral tissues as shown in figure 2.

Thus, glucagon plays a major role in the regulation of hepatic glucose flux through effects on glycogenolysis and gluconeogenesis. The glycogenolytic action has been recognized for more than a decade. Recognition of the glyconeogenic action of the hormone is more recent, resulting from the discovery of increased urea production and demonstration of lactate, amino acids and pyruvate incorporation into the liver cell following glucagon stimulation. Gluconeogenesis is as sensitive as glycogenolysis to the stimulatory effect of glucagon and plays a definite role in the maintenance and constant flow of glucose through the liver in order to maintain the level of glucose in circulating fluids..

Glucagon in Diabetes and Fasting States

These states have been studied by Unger and colleagues and were found to be associated with hyperglucagonemia. This occurs in spite of diabetic hyperglycemia. Insulin deficiency and short-term starvation have long been known to increase gluconeogenesis in humans. It is possible that increased supply of gluconeogenic substrates from tissues such as muscle and fat are important factors whether or not there is modification by the

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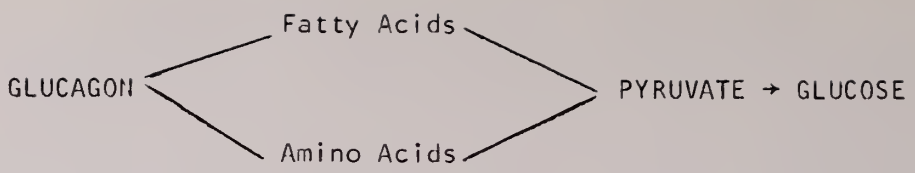


Figure 1

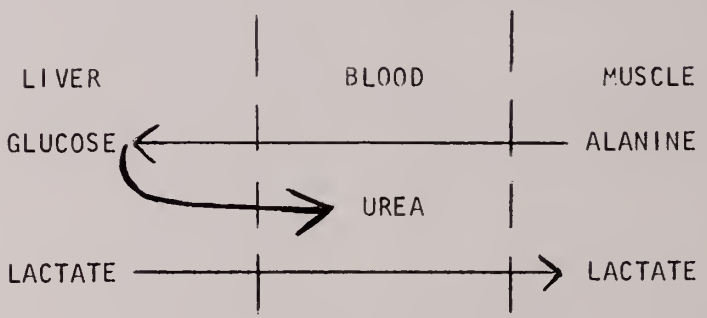


Figure 2

actions of glucagon.

There are some unexplained characteristics of diabetes and starvation gluconeogenesis, which seem to be over and above those associated with gluconeogenic rates seen in normal individuals. This might be due to enzymatic adaptations to the deprivation states.

Summary

Glucagon exercises its action at several tissue levels in order to maintain a constant internal metabolic and energy environment. It accomplishes this through the glycogenolytic and gluconeogenic pathways and at the expense of peripheral tissues and in the partial or complete absence of insulin. Glucagon plays a definite role in certain metabolic diseases and hunger situations by providing a flow of glucose into the peripheral tissues (especially CNS) to provide the necessary energy for work and cell survival.

References may be obtained from the author upon request.

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The Disturbed Child With Diabetes

David R. Leaverton, M.D.

Not all children with diabetes have definite psychological disturbances of major proportions. The literature gives us a good picture of the child who is disturbed enough to need referral. He or she is characteristically:

(1) the oldest child in the family, (2) the child who has had diabetes since an early age, (3) a child who has had diabetes for many years, (4) a disadvantaged child of lower socio-economic status, (5) a child who is low in intelligence, (6) a child whose diabetes is poorly controlled, (7) a child who exhibits the following personality characteristics: a. overdependent, b. expressive of overt hostility, c. possessing a poor self-concept, (8) a child who acts out his hostility through accident-proneness (which may be a cover-up for self-destructive, suicidal thoughts) or forgetfulness in taking his insulin, measuring his urine sugar and acetone and in eating in unusual ways, (9)a child whose parents are overzealous in their restriction of the child's food intake and social activity, (10) a child who had a poor adjustment at home and with his peers.

Let us clarify the meaning of overdependency and overprotection by parents. What does "overprotection" really mean? It has been stated that one of America's greatest barriers to understanding is the Puritan ethic which states that we cannot express our anger verbally, directly. When a mother is very upset by her child's chronic illness, such as diabetes, her disappointment leads to anger and concealed rage. These feelings must be buried if she accepts the rule that she should not have negative feelings toward her ill child (since parents often believe that to have negative feelings implies one must act upon them). Overprotection really means that a mother is afraid her child might die and at one time or another has had feelings that perhaps it would be better if the child did die. . . . but. . . . greets this recurrent thought with self-guilt whenever it comes to mind. A mother whose life revolves around her sick child reminds one of a hurricane that is building with increased inner turmoil. The family environment, the other siblings and the father often wonder why they have suddenly lost out. They find few of their needs fulfilled when a child suddenly takes up all of the mother's time after the diagnosis of diabetes. The brother's, sister's and father's anger toward the sick child also must be suppressed if the rule is to be followed. This creates a situation in a family such that no one can be angry at the child with the disability, and hence, he or she becomes very special. Interestingly, it is the siblings who lose mother's and father's attention and who become changed. They perceive themselves as being worth less than the child affected with diabetes. Overprotection puts both the child and the family in a bind, lying to themselves that they do not feel tenseness and anxiety. These brothers and sisters may actually yearn to have a disease for which they could be specially treated.

The overdependence creates a situation where hospitalization and separation, from mother at camp and from parents when the child goes to school, are especially stressful times to the child with diabetes. It was stated that the mother was angry and frustrated about her child's disease and that this carried over to her feelings about the child. It is this very deeply felt anxiety over separation which causes the parents to tighten their grip and restrict the child in his food, his activities and his feelings. This leads him to have difficulty with his impulses, his efforts in school and getting along with his peers. He may be so anxious as to daydream constantly or be afraid to leave home and thereby be stigmatized by his friends. This overdependence becomes a habit. Many children at college continue to receive their injections by a parent figure at the student health service.

In stating that the child with diabetes has a poor self-concept, one has to remember that the daily injection of insulin, the daily testing of urine and the worry over food intake remind the child that his body "machine" is not perfect and needs constant checking and regulating.

If the child is overdependent, he has feelings of need, which are frustrating and lead to anger. The child with diabetes expresses these feelings

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indirectly. More than likely he will direct his anger inwardly, take poor care of his diabetes and be careless in insulin dosage. There are striking examples in the literature of the self-destructive, suicidal actions taken by chronically emotionally ill adults and late adolescents with diabetes. College medical personnel often see students who "forget" to take their insulin during times of stress: exams, orientation week and holidays.

The child with diabetes is in a "double bind." He is treated at home as if he were abnormal with overdetermined parental restrictions of food and socialization but expected to perform outside the home as if he had no medical problem. That this "double bind" of conflicting expectations causes emotional disturbance is supported by reports that the child who has diabetes the longest and the child who has diabetes diagnosed at an early age are those with the more severe problems.

The child with poor adjustment at home may have the kind of mother who has self-pity and blame for the child because of the illness. She openly rejects and is hostile to her child. She treats the illness as if it were her own fault and masochistically takes her angry feelings out on herself. A slightly less common type of mother of the child with diabetes is perfectionistic, overcontrolling, an authoritarian who has great expectations for her children. The child rebels and may fail in school, steal or otherwise act out. Ideally, the mother of children with diabetes is a tolerant, accepting parent who is not restrictive, does not deny the child's illness, and, being flexible enough, makes adjustments to meet the child's emotional needs.

The number of children with diabetes referred for psychotherapy is very few. In addition, the amount of parental awareness concerning the need for emotional support has been reported to be very low. It is possible that one can explain this low referral rate and decreased awareness by remembering that the defense mechanism—denial—is used most frequently by parents whose children have diabetes. Children's attitudes concerning their chronic illness are extremely unrealistic. They express opinions that to have pimples, be fat, think slowly, have six toes on one foot, are very much worse conditions to have than diabetes. This extreme use of denial leads them into other unrealistic ways of coping with problems.

For purposes of illustration, we will cite three case reports of children at some of the vulnerable ages when the stress of diabetes may lead to emotional disturbance.

Report of Cases

Case 1.—At the camp for children with diabetes a thin, pretty, red-haired 15-year-old girl was seen. She walked with a depressed slump to her shoulders and wore a chronic frown. She had been spilling large amounts of sugar and ketones for several months. She was the youngest of three children, having a brother, the middle child, who had failed school at age 16 and was in constant rebellion. The mother was obese, widowed and financially pressed. The older brother had left home for the military. The father had died a few years previously in his 40's of heart disease. The diagnosis of diabetes in this girl within the last year had allowed the depressed mother to restrict the girl's activities rather severely. She slept with her mother every night. During the interview it became quite obvious that the mother was trying to continue to restrict the girl with a dependent clinging relationship, so that she would have someone for comfort as she grew older. The daughter was not completely unsatisfied by this and said that she derived pleasure from being with her mother. They would "joke" with each other by bantering criticisms about appearance back and forth. During the two-week camp stay, the girl gained a small amount of weight, making her appearance more attractive. Her depressed stature changed markedly. She began receiving the appropriate amount of insulin and became more animated in her conversation. She had initially spoken to counselors of having nothing to live for. Now she began talking about getting back to school and making new friends. The mother, who previously had not planned to come for parents' day, was especially invited and given a great deal of emotional support by the camp staff of physician, child psychiatrist and nurse specialist. It often takes this kind of collaboration to insure that psychiatric referral will be successful.

Case 2.—Mike was a nine-year-old third grader who appeared at the time of the physician's visit to be extremely depressed. His parents stated that diabetes had in no way changed their lives or caused any inconvenience. Mike's head sagged, his eyes had black hollows under them and his diabetes was somewhat labile which led to emergency hospitalization for ketosis. He is the son of hard-working parents who, although they have been working in a small rural town in north Florida, hardly make the minimum hourly wage. They try extremely hard to treat their child normally and are unaware of his loneliness, lack of friends and fears concerning his health. When psychiatric referral was made, they went only because the doctor felt it was necessary. When the child was mute, depressed and immobile, they saw nothing wrong. When talking about their lives, they gave a defeated, hopeless attitude concerning their marriage and employment; rather than being concerned over their child's difficulties in school, they accepted them as their due.

This type of pattern is difficult for everyone to deal with. Parents who are depressed and financially hurting prior to the child's diagnosis often see the chronic illness of their child as an area where they feel they can externalize their angry feelings about life. This may cause the child to feel inappropriately he is the cause of all their miseries and woe.

Case 3.—Tommy was an eight-year-old boy who began having difficulties with diabetes in his second year of life. This coexisted with marital difficulties and frequent separations by the parents. When the child was tossed from pillar to post, his only security was a grandparent. The mother felt further defeat when her motherly duties had to be given up to the grandparent when she returned to work for financial support. Because of her insomnia, thoughts of suicide and anorexia, she sought psychiatric referral and was able to receive some help for herself. However, her son remained lonely, dependent and clinging. At camp he was friendless and spent a great deal of time

being supported by the camp staff concerning his homesickness. At times he would be seen wandering aimlessly midway between his peers and the camp counselors as if undecided about which way to go.

What can physicians who see children with diabetes do about these kinds of problems? One of the first objectives would be for the clinician to be aware of how he has viewed disturbances of thought; mood and behavior in his child patients with diabetes. Hopefully, he has been able to look at them with a detached, clinical eye and to take their hostility, clinging dependency and poor diabetic control as information useful in helping them. We can do the child patient a service by assessing his parents' attitudes. Do the parents deny the child's difficulties, oversimplify and keep the disease a secret? Do they reinforce a dependent, clinging, inactive child and overprotect him because of their fear of letting loose? Or are they hostile, self-pitying, depressed and unable to assist the child in coping with the stress?

Has the child been to camp? Did the child and parent find it helpful? Not all children need camp and not all camps for children with diabetes have good programs. Hopefully, most of them are no longer weighing food and subjecting the patient to such rigid control that he faints from hypoglycemia.

Does the child seem to be the only point around which the parent revolves? Is he a center of a storm of controversy in the school and community? To get this kind of information, the clinician must become involved with his patient in discussions other than those about urine, sugar, acetone and insulin. A risk must be taken to extend oneself in a private life that is usually guarded, defensive and ambivalent about his concern.

Having considered psychiatric referral, are physicians aware of how difficult this process may be? Are they willing to sit down with the parent and child long enough to discuss with them the real meaning of referral? Often parents feel that the doctor is making a personal attack on them if a psychiatric referral is suggested. Getting over this process may take two or three visits. Sometimes the physician has to change his way of operating and spend more time with the patient than he ordinarily would.

Studies of the use of group therapy in similar kinds of chronic illnesses indicate the usefulness of this technique. If referral does not seem indicated or if the clinician wants to extend himself more freely into helping the child with diabetes, group meetings of parents or child patients could be facilitated.

In summary, when we deal with a child with diabetes who is difficult to manage, can we focus on the child and not the disease? Can we remember that emotions influence psychology? Can we recall that the illness itself may have great emotional significance to the patient and parents? The child-parent, as well as the doctor-patient relationship is a two-way process.

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The Pediatric Nurse Specialist in Diabetes Mellitus

Judith McFarlane, R.N., M.N.

Specialized competence in diabetes has been acquired by two different routes in our nursing education program. One involves a post-baccalaureate internship program for 12 months. The second involves the graduate program leading to a master's degree in Pediatric Nursing. Two nurse specialists prepared in the post-baccalaureate internist program in diabetes at the University of Florida are currently working with adult diabetics in our county. The writer was trained in the pediatric master's program. Both programs provide specialized training with children and adults having diabetes in the clinic, hospital, and home environments. The nurse specialist role is three dimensional—that of practitioner, instructor, and investigator.

As a practitioner the nurse specialist renders specialized nursing services in the clinic setting which include:

1. A thorough assessment of the parents' and child's understanding of the diabetes and their present plan of care at home. A form has been devised to assure complete data collection.
2. Instigation of a teaching program, e.g., insulin dosage, urine testing and records, nutrition, etc.
3. Counseling regarding problems at home or school attributed to the diabetes.
4. Adjustments in the treatment plan.
5. Appropriate follow-up procedures, e.g., correspondence with health agencies, physicians or the family, collaboration with other patient speciality areas.

The reasons for this patient care and education confront us daily. Children are restricted to the home, unable to attend school because of inadequate knowledge in the management of their diabetes. Others are in and out of hospitals constantly, resulting in emotional and financial turmoil for the families. We frequently encounter parents whose children have had diabetes for years who do not have a basic understanding of diabetes or how to adjust the daily treatment plan to meet the child's needs.

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As an example, a 14-year-old girl was diagnosed as a diabetic in May 1968, at which time she was hospitalized two weeks for regulation. She did well until October when she began experiencing "black-out spells" lasting 30 minutes to three hours and described by the child as shakiness and nervousness. They occurred at home, school, church, or on the school bus, at breakfast, lunch time, and the evening. These "spells" resulted in 20 hospital admissions from October 1968 to January 1970, when she was referred and admitted to our hospital. She maintained good control during the four-day evaluation period with no hypoglycemia or ketonuria. The nurse specialist, while assessing the home management program, found that the "black-out spells" occurred most frequently from 4 to 6 p.m. Her mother made her follow a strict diet and no snacks were allowed unless the urine was negative. The mother and daughter used a "sliding scale" for insulin regulation. Severe subcutaneous hypertrophy and atrophy at several sites were also noted. Both mother and daughter were instructed by the nurse specialist in the importance of a well-balanced diet, including snacks, insulin regulation over a 2-3 day period rather than a sliding scale daily, site rotation and correct urine testing and recording. For the past year she has kept all clinic appointments and has had only one hospitalization. Contrasted to her 20 hospitalizations between diagnosis and referral, this represents an 88.5% decrease in the rate of hospitalization for this child. The follow-up program has included a two-week camp session at Florida's Camp for Children with Diabetes, verbal and written correspondence with her teachers, and phone calls to the home at periodic intervals.

Another ten-year-old girl was diagnosed as a diabetic in May 1963. From 1963 to 1969 she had frequent hospitalizations. During the 1969-1970 school year she attended school a total of 23 days. She had 15 hospital admissions for ketoacidosis from December 1969 to May 1970, incurring expenses to the family of $5,445. She was detained in the second grade for the 1970-1971 school year, her second grade failure due to inadequate control of the diabetes. She and her

mother attended a teaching program at Florida's Camp for Children with Diabetes in August 1970. The nurse specialist stressed early identification of ketonuria at home by the family and quick instigation of appropriate procedures. Since then she has not missed one day of school, has had no emergency room or hospital admissions, and has been promoted from the second to the fourth grade. Both family and school report a happy, well-adjusted child.

A two-year-old boy was diagnosed as a diabetic in December 1969. From April 1970 to August 1970, he experienced nine unscheduled outpatient clinic appointments and two emergency room admissions for hypoglycemia, ketonuria, and miscellaneous management problems. The nurse specialist assessed the parents' understanding and found that problems characteristic of growth and development stages were being attributed to the diabetes and he was using the diabetes to threaten and control his parents. The nurse specialist taught management skills coupled with an understanding of normal growth and development. With close home and nursery school contact he has had only one scheduled outpatient clinic appointment for routine reevaluation since August 1970.

These are not isolated or unusual cases. A number of such individuals have been followed here, one with a history of 124 hospital admissions over a ten-year period. However, the children illustrate the need for a nurse specialist to carefully assess, instruct, and follow through with the family's management of the child with diabetes. We have found it essential for the nurse specialist to be available to families 24 hours a day for recommendations on management regulation. Parents feel comfortable in consulting the nurse specialist for advice regarding ketonuria, glycosuria and hypoglycemia, thus avoiding costly emergency room, clinic or hospital care. They are frequently reluctant to bother an overburdened physician until the situation has developed into a crisis.

As a practitioner, the nurse specialist also acts as a consultant in the hospital and community. Collaboration with the nursing staff on the specialized care and teaching necessary for a child with diabetes and periodic nursing inservice programs about diabetes are conducted. Continual written correspondence is maintained with community health nurses in the state to relate the exact teaching and management recommendations of the nurse specialist to particular families. Community health nurses use the nurse specialist in diabetes as a resource person and call into the center for advice. Each schoolteacher in the county who has a child with diabetes is contacted. A form is being developed to evaluate the level of understanding a teacher has regarding diabetes. This assessment will then allow for appropriate information to be given so needless anxiety can be alleviated.

The second role of the nurse specialist is that of pediatric instructor. Selected senior nursing students receive instruction for one academic quarter from the clinical specialist. The students are taught interviewing, assessment, counseling, and teaching skills in the clinical setting. Perhaps the most important aspect of this instruction is the demonstration of continuity of care from clinic to home setting. We have frequently observed that the stress and confusion of the clinic impairs comprehension of instruction given to the families. We see evidence of the stress when ketonuria is present only during the clinic visits. Follow-up teaching in the familiar setting of the home environment allows for communication with the entire family under minimal stress and after personal experience with the management techniques. The students render specialized nursing care to the family and child with diabetes in the clinic, home, school, and camp setting.

Finally, it is essential that the nurse specialist engage in nursing investigations to further her own knowledge, to act as a role model for students and, most important, to improve the quality of patient care. Several studies conducted by the nurse specialist are being analyzed at this time. One of these deals with how families cope with diabetes. The study seeks to determine whether basic patterns of daily living (sleep schedules, meal times, diet content, leisure activity, family size, etc.) are altered when a child is found to have diabetes. If these basic living patterns are changed, then some degree of stress is inevitable. How then does the family cope with this stress? What effect does the stress have on the control of the diabetes? Our goal is to develop a coping index enabling the nurse to assess quickly the family's present ability to cope with the diabetes so she may instigate appropriate teaching and counseling. Other studies dealing with the technical aspects of diabetes regulation, retention of information taught and teaching techniques are under way.

References may be obtained upon request from the author.

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The Hypoglycemias of Childhood and Their Evaluation

Allan Drash, M.D.

Hypoglycemia is a symptom, not a disease. It may result from very diverse pathological processes.

The glucose concentration in the circulation at any one moment is obviously a function of supply and demand. Hypoglycemia may occur in three broad categories. 1. There may be increased peripheral utilization of glucose and if there is not an increase in the rate of supply, via either oral intake or liver release from glycogen, then the blood sugar is going to fall. 2. On the other hand there may be a constant peripheral rate of glucose utilization but a decrease in terms of hepatic supply. The liver is very central in energy metabolism, specifically controlling glucose supply. The liver releases glucose into the general circulation, varying the rate of delivery according to the physiological situation and the concentration of hormonal agents impinging on the liver. If there is interruption of glucose supply to the periphery, the blood sugar will soon fall to zero unless there is conversion to some other energy source. 3. The third possibility is starvation or unavailability of substrate. This occurs in the premature or the newborn. It is uncommon to see hypoglycemia as a consequence of starvation in the normal older child or adult. Starvation, except under unusual circumstances, does not result in hypoglycemia because of the control mechanisms which switch the body over to free fatty acid and amino acid utilization. The infant does not have a very efficient system for doing this, consequently the small premature or the newborn is in some jeopardy when calories are restricted.

Chronic diarrhea in infants with loss of nutrients may be complicated by hypoglycemia. Indeed, it has been a major factor in mortality in these infants. Renal losses of nutrients need to be considered just for completeness. Hypoglycemia resulting from renal glucosuria may occur but it must be extraordinarily rare.

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A more detailed look at those conditions associated with an increased peripheral utilization of glucose is in order. Logically, we would start with neoplastic problems in which there is an increased production of insulin, an islet cell tumor. This is an uncommon, but a curable, cause for hypoglycemia. It must be considered promptly in a child who has had recurrent hypoglycemia. There were, at last count, something under 40 cases of islet cell adenoma documented in the pediatric literature. We have personally seen about eight. It does occur and at all ages. Most of the cases of islet cell tumors in childhood have been reported in the older child but we and Cornblath have reports on neonates with hypoglycemia. Islet cell carcinoma occurs rarely, if ever, in the pediatric age group.

Islet cell hyperplasia is an interesting disorder. It occurs regularly in the infant of a diabetic mother. The infants of diabetic mothers have a very high incidence of hypoglycemia, either symptomatic or asymptomatic, in the first three or four days of life. If death occurs during this period, islet cell hyperplasia is present to a marked degree. However, hyperplasia and hypoglycemia spontaneously clear by 7-10 days. Congenital leucine-sensitive hypoglycemia may also be associated with islet cell hyperplasia.

Early diabetes mellitus may be a cause of hypoglycemia in which there is excessive insulin release. This is seen in perhaps 8% or so of maturity-onset diabetes. It is less frequent in the juvenile form of diabetes but does occur. Extrapancreatic neoplasia may be a cause for hypoglycemia. They are usually fibrosarcomas and rare in childhood. Growth hormone deficiency is frequently associated with hypoglycemia. About 70% of the children with growth hormone deficiency have a tendency toward hypoglycemia, as indicated by insulin tolerance testing. About 15% of children with this deficiency have trouble with hypoglycemia from a symptomatic point of view. This is "cured" when they are treated with growth hormone. Excessive exercise probably is not a significant factor in hypoglycemia unless there are

other pathological processes going on. However, exercise may be a useful method of provoking hypoglycemia for diagnostic purposes following a 24-36 hour fast.

There are two aspects of liver function that are important to consider in terms of energy homeostasis; one is the release of glucose from glycogen stores and the other is production of new glucose from amino acids. There are a number of glycogen storage diseases but only three which are associated with hypoglycemia. The classical one is von Gierke's disease, Type 1 glycogen disease with glucose-6-phosphatase deficiency. Galactosemia is an enzymatic defect in which there is an inability to convert galactose into the glucose pool. The mechanism for hypoglycemia is not well understood. There may be a temporary inhibition of glycogen mobilization and, in addition, eventually there is considerable liver destruction with chemical hepatitis progressing to cirrhosis. Hypoglycemia is not, however, related to excessive insulin release. In hereditary fructose intolerance, hypoglycemia regularly follows fructose ingestion. The mechanism of hypoglycemia is not known.

Glucagon deficiency probably is a significant cause of hypoglycemia. However, it is very difficult to substantiate this diagnosis because of the general unavailability of a glucagon assay. The Zetterstrom syndrome is an interesting, relatively new syndrome. These patients are, for the most part, prematurely born or small-for-age children, many of whom are moderately retarded. Recurrent hypoglycemia is usually diagnosed between a year or two years of age. On testing they are found to have low-normal basal urinary catecholamine excretion, but on stimulation do not appreciably increase the excretion of catecholamines. What does this mean? This diagnostic category has come under major attack, for good reason. If a child is chronically hypoglycemic, he may well be constantly depleting catechol stores. On the other hand, if the patient is sporadically hypoglycemic, he should be able to respond with release of catecholamines following insulin-induced hypoglycemia. I feel that this is a real diagnostic entity, but do not know whether the basic pathology resides in the hypothalamus or adrenal medulla. I am not going to discuss ketotic hypoglycemia which is a separate topic in this symposium. I am not sure that it is a pure diagnostic category.

Hyperinsulinism is not inappropriately discussed again in relationship to hepatic control of glucose metabolism. Hyperinsulinism inhibits glucose release from glycogen. Indeed, a number of cases of children and adults with islet cell adenomas and severe hypoglycemia have not had elevated peripheral levels of insulin. The mechanism probably is that the insulin is primarily affecting release of glycogen from the liver. With inhibition of the outflow of glucose from the liver there will obviously be hypoglycemia. Primary liver disease, cirrhosis and hepatitis, obviously need to be considered as potential causes of hypoglycemia.

Causes for impaired gluconeogenesis include cortisol deficiency or Addison's disease, glucagon deficiency, ketotic hypoglycemia, alcoholic hypoglycemia, and salicylate intoxication.

What about the neonate with hypoglycemia? This is a fairly common problem. Diagnostically one can put the transitory hypoglycemics of the neonatal period into one of three categories. One situation, which we have already referred to, is the infant of the diabetic mother. In Cornblath's data about 50% of these children have blood glucose values below his determined norm. They don't all have symptoms. Most people now feel that treatment of asymptomatic neonatal hypoglycemia is probably indicated. Infants of known diabetic mothers should have glucose monitoring routinely. In addition, the neonate who weighs in excess of 9 lbs. should be carefully observed for hypoglycemia during the first two or three days of life.

The next neonatal category with increased incidence of hypoglycemia is the true premature. The true premature does not have the refined homeostatic mechanisms that the normal term baby has. These infants are in jeopardy from hypoglycemia and should be observed carefully. Treatment with intravenous glucose should be instituted if chemical hypoglycemia is found.

The third category, the so-called Cornblath babies, or the infants who are small for dates may have quite severe neonatal hypoglycemia and it may persist for a number of days. They may require vigorous therapy with glucose infusions, glucagon, cortisol, etc.

We do not extensively work-up neonatal hypoglycemias because most of the cases are transitory. In addition, it is frequently very difficult to interpret results obtained from tolerance testing in the neonate. Our approach to these children is primarily therapeutic. We attempt to maintain normoglycemia by intravenous glucose, etc. for several days. If hypoglycemia persists or recurs after 7-10 days, it is then necessary to carry out a more complete evaluation. It is usually easy to rule out

many of the specific diagnostic categories previously discussed. Glycogen storage diseases are relatively easy to diagnose. Galactosemia and fructose intolerance can be readily detected by study of urine sugars.

After completing an extensive diagnostic evaluation in the infant and young child, we find that about 80% have no specifically diagnostic physical or biochemical findings. These are the patients generally referred to as idiopathic hypoglycemics. For classification purposes, these patients can be further subdivided into one of several broad categories. These would include functional or organic hyperinsulinism, such as leucine sensitivity; diminished gluconeogenic activity, an illustration of which might be ketotic hypoglycemia; and reversible, mild endocrine deficiency problems. As an example of this we have recently studied six hypoglycemic children who had unresponsive Metopirone tests. Metopirone is the compound used to study adrenal cortical function. When these children were hypoglycemic they were unresponsive, suggesting that they might have Addison's disease. Yet, on later testing, their response returned to normal and they were no longer hypoglycemic. Several of these children were very similar to children with maternal deprivation dwarfism. The great majority of children with "idiopathic hypoglycemia" spontaneously improve with time. It is most unusual to see persistence of this problem with the school years. This indicates that, in the younger child, there are a number of environmental factors, both internal and external, which will effect changes in the energy homeostatic mechanisms, resulting in an increased tendency toward hypoglycemia.

References may be obtained from the author upon request.

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Management of Hypoglycemia

Donough O'Brien, M.D.

Hypoglycemia is a reasonably common metabolic problem, which is consistently unsatisfactory to treat because of the difficulty in pinpointing the block in the intricate lacework of homeostatic mechanisms preserving normal sugar levels in the blood.

Aberrations of glucose metabolism may occur in many diseases such as galactosemia, glycogen storage diseases or in newly described entities like Leigh's encephalomyelopathy or fructose 1-6 diphosphatase deficiency.

In these situations that are etiologically well defined, treatment is oriented to the primary disease, as in salicylate intoxication causing hypoglycemia, fructose intolerance, glycogen storage disease and many of the endocrinopathies. In the remaining hypoglycemias, one cannot define the biochemical defect precisely and these are treated empirically, albeit rationally, by controlling glucose sources by adsorption or from glycogenolysis or gluconeogenesis.

It has been my impression that hypoglycemia in the undernourished is not uncommon. We have become occupied in the last few years with the discovery that quite severe malnutrition is common or relatively common in this country. Recent reports have indicated that hypoglycemia is coexistent with malnutrition in those cases that have associated enteric infection, and that if you treat the enteric infection and the malnutrition, you restore normal enteric absorption. This might incidentally be used against the current practice of not treating enteric infections with antibiotics.

A number of factors lead to hypoglycemia in the newborn. Excessive insulin in the case of the infant from the diabetic mother is one factor. In other cases it may be from nonavailability of glycogen and from immaturity of the enzymes of gluconeogenesis and, perhaps, the enzymes of glycogenolysis as well. Because of this polyetiology in the newborn, one is justified in adopting an approach to treatment which is independent of the metabolic definition. Infants who are hypoglycemic, that is to say, have blood sugars below 30 mg./100 ml., should be treated. This also implies that it should be looked for in children with minimal suggestive symptoms since infants who had pronounced symptoms seemed to have significant impairment of intellectual performance later. Most of these children can be treated with intravenous infusions of dextrose, provided one is careful not to discontinue the infusions suddenly after 24 to 48 hours of treatment. It can be given intravenously in association with small volumes of water, perhaps 30 to 40 ml. per kilo/24 hr. and in high concentrations, 10% or even 15% dextrose. Such a regimen will sustain relatively high blood sugars and may occasionally lead to glucosuria because the renal threshold is exceeded.

The therapeutic objectives in neonatal hypoglycemia, which is usually evanescent but nevertheless extremely important, are intravenous glucose administration, supplemented if necessary by both steroids and glucagon.

The same approach applies to the management of the idiopathic hypoglycemias. This may be related to a lack of catecholamines as reported by Zetterstrom. Some of the others may be due to insufficient glucagon, and some to insufficient enzymes for gluconeogenesis. The important thing is to perceive the diagnosis insofar as you possibly can. The initial basis of therapy is again the utilization of frequent high carbohydrate feedings.

In some instances such a simple approach is not adequate and I would then recommend the utilization of steroids. In the great majority of these cases, treatment with small doses of prednisone (5 mg./m^2/24 hr.) given daily is a successful measure. It acts both by mobilizing glucose from liver glycogen and on the gluconeogenic enzymes where the presence of increased levels of steroids overcomes the inhibitory action of insulin.

In new cases of suspected hyperinsulinism, steroid therapy may be useful because it antagonizes insulin in terms of the ability to permit gluconeogenesis. If this is not so, the alternative drug to be used is Diazoxide, 4 mg./kg./24 hours.

Another drug that is useful is ephedrine, which inhibits insulin release and is a very potent stimulator of glycogenolysis. If all these agents fail to control hypoglycemia, subtotal pancreatectomy is

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the treatment of choice because the effects of a nonfunctioning pancreas are really quite small in relation to the risks of cerebral damage from hypoglycemia.

In summary then, the management of hypoglycemia should be based around the three mechanisms for producing glucose, namely, alimentary, including intravenous infusion of glucose in acute situations, ephedrine or steroids to release glucose from glycogen, or steroids to release glucose by gluconeogenesis. In cases of hyperinsulinism use Diazoxide and, in a few cases, to prevent cerebral damage, resort to pancreatectomy.

References may be obtained from the author upon request.

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Let me assume that, instead of succeeding at once in making a rabbit diabetic, all the negative facts had first appeared; it is clear that, after failing after two or three times, I should have concluded. that the theory guiding me was false. . . .yet, I should have been wrong. How often must man have been and still must be wrong in this way! It even seems impossible absolutely to avoid this kind of mistake. We wish to draw from this experiment another general conclusion . . . that negative facts when considered alone, never teach us anything.

Claude Bernard

Ketotic Hypoglycemia
New Observations

Arlan L. Rosenbloom, M.D.

Marfan at the turn of the century described acetonuric vomiting, which in this country was referred to as "cyclic" or "recurrent" vomiting. In 1924 Ross and Josephs made the association between convulsions, hypoglycemia and acetonuria. There was considerable early argument whether these children were more susceptible to fast than normals, but the redoubtable Darrow found that children with nondiabetic ketosis had normal blood sugars. After 1935, cyclic vomiting as an entity disappeared from the literature and the term was used to describe a psychological condition or an epileptic equivalent. From 1937 to 1959 there were a handful of reports associating low blood sugar, acetonuria and convulsions. It was not until 1964 that Colle and Ulstrom described eight children with what they called "ketotic hypoglycemia." Since then, this has been recognized as the most common variety of hypoglycemia in children.

Ketotic hypoglycemia occurs most often in low birthweight children, frequently with perinatal difficulties. Twinning seems to be a common phenomenon. The hypoglycemia usually begins after 18 months of age in contrast to the more severe leucine-sensitive and other idiopathic hypoglycemias with onset typically prior to 18 months of age.

Children with ketotic hypoglycemia are small and lightweight. Their intelligence generally is normal. There is no hepatomegaly in these children to suggest storage disease. The hypoglycemic episodes are relatively infrequent. These children are well between episodes, although they may have mild symptoms of hypoglycemia in the early morning before breakfast. One is struck by the consistency of the timing of the hypoglycemic episodes. They vary in severity from weakness to convulsion. They vary from patient to patient, and they vary within the same patient from time to time. The association of vomiting with these seizures is a feature that is not present in other forms of hypoglycemia. Immediate relief of symptoms by glucose infusion or oral glucose is typical. The affected children do not have hypoglycemia after a short fast or in response to a glucose load. Children with leucine-sensitive hypoglycemia and other forms of hypoglycemia often have significant hypoglycemia during the oral glucose tolerance test. These children do not. When subjected to a prolonged fast, they tend to develop acetonuria. Most children have acetonuria when they are fasted, and these children do not have any more acetonuria than other hypoglycemic patients or than normals following similar duration of fasting.

Eighteen to 30 hours following the start of fasting, these patients develop hypoglycemic symptoms. Though responding to glucagon with a rise in blood glucose after a short (8-12 hours) fast, they no longer respond when fasted for 24 hours or until symptoms develop.

The inability to respond to glucagon in the hypoglycemic fasting state is the hallmark of this form of hypoglycemia. Children with other forms of hypoglycemia have remarkable responses to glucagon. This is very important in the acute management of these children, but it also suggests that we are dealing with a different entity in terms of the liver's resources for glucose production.

I shall cease referring to this as "ketotic hypoglycemia" and start referring to it as "glucagon unresponsive fasting hypoglycemia" because I do not feel that the ketosis is a diagnostic requirement for the disorder, whereas glucagon unresponsiveness certainly is.

The mechanism is not at all clear. Children with dehydration, vomiting and ketosis have normal blood sugars and respond to glucagon with a rise in their blood sugars and a fall in free fatty acids. This is not so with the glucagon unresponsive hypoglycemia patient whose general condition

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is really much better than that of the ill children who have been studied. What are the possible reasons for this?

Failure to convert to a fat-burning economy with a continuation of glycogenolysis until the liver is exhausted suggests itself by this failure to mobilize glucose following glucagon injection. Several years ago Sauls reported biopsy results in four control children and in four patients with glucagon unresponsive hypoglycemia. The control patients had considerable glycogen in their livers, while the unresponsive patients were glycogen depleted after prolonged fasting. This exhaustion could be due to rapid utilization of liver glycogen during the fast or due to a failure to replenish the glycogen through gluconeogenesis.

There is considerable evidence that gluconeogenesis occurs during fasting and a portion of this gluconeogenic production goes into replenishing liver glycogen. The original studies by Colle and Ulstrom included a group that received cortisol. With cortisol they could correct the defect in glucagon responsiveness and they suggested that this observation was consistent with a defect in fasting gluconeogenesis. Kogut has recently suggested hypoinsulinemia during fasting in these children which would result in inadequate protection of liver glycogen by basal insulin levels during the fasting state. Insulin is responsible for reversing glycogenolysis and if it were inadequate during the fasting state, exhaustion of liver glycogen might ensue. We have found, as have others, normal insulin responses in these children.

Further metabolic studies have been done to delineate the mechanism of hypoglycemia. Fructose infusion was found to increase the blood sugar indicating that the triose phosphate pathway was intact. Glycerol infusion was shown to increase the blood sugar indicating that gluconeogenesis from that source was appropriate. Ketone infusion does lower the blood sugar in these children, but no more than in normal controls. Ketones inhibit glycogen breakdown. One would imagine that the ketotic state in these children would be protecting them against hypoglycemia rather than leading to it.

In view of this failure to elucidate a mechanism, we looked at the effects of a drug that is hyperglycemic by virtue of its ability to suppress insulin release and by endogenous sympathetic stimulation with a net effect of increased glycogenolysis, increased lypolysis and ketosis. Such an agent should make glucagon unresponsive hypoglycemia worse, according to the proposed mechanisms. By increasing glycogenolysis, thereby emptying the liver faster, it should have a deleterious effect. If ketosis is a factor in producing whatever inhibition is involved in the glucagon unresponsiveness, this drug should make it worse also. The drug is Diazoxide,* a nondiuretic benzothidiazide.

We have studied nine children with this variety of hypoglycemia and observed restoration of glucagon responsiveness in the fasting state with Diazoxide treatment in six patients. Three children had no improvement despite the fact that Diazoxide induced diabetic glucose tolerance in them.

These studies may have differentiated two variants of glucagon unresponsive fasting hypoglycemia. The group not responding to Diazoxide in this series may have the same variety as the four patients who on biopsy were found to be exhausted of glycogen in the fasting state. The group responding to Diazoxide with the restoration of glucagon response in the fasting state may represent a separate entity where release of glycogen is impaired during starvation. Diazoxide would, in these patients with stored glycogen, condition or amplify the response to glucagon via its known effects on inhibiting the enzyme responsible for breakdown of the second messenger, cyclic AMP. The formation of cyclic AMP in turn activates the phosphorylase reaction that mediates the glycogen-to-glucose conversion. Thus, one could envision Diazoxide in the patients responding to it as a conditioner or amplifier of this reaction restoring glucagon response. This effect of Diazoxide has been shown experimentally in the absence of the pancreas.

Two of the children who responded to Diazoxide were given ephedrin, and this experiment repeated. They had improved response to glucagon in the fasting state on ephedrine as well. This indicates that the extrapancreatic (sympathomimetic) effects of Diazoxide are sufficient to restore glucagon responsiveness.

Although our frustration is hardly reduced appreciably by these observations, our questions may be slightly more precise because of them.

*Kindly supplied by Schering Corporation.

References may be obtained from the author upon request.

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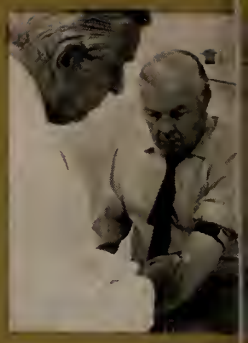
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Editorial

Foundations

In the medical profession the individual providing primary care must become involved in preventive medicine and must change the patient's attitudes toward health. Since a new and different kind of physician is needed, his present role must change. Forced by burgeoning demands of special interest groups, faced with inadequacies of the existing delivery system and its painful shortages of manpower and facilities, lacking is time to recruit and train this new breed of physician.

Bored with a workload of trivial illnesses, huge demands for pastoral and supportive psychotherapy—the alarming fact that an increasing amount of chronic disease is well past serious treatment when first diagnosed—abetted by hankering after a peculiar intellectual challenge of interesting hospital medicine, the average American physician appears ill-suited to care for the changing needs of our population as demanded by the nation's health planners.

Perhaps needed is a system to divert and serve the many people who don't really need a physician's services.

Under the health planner's demands, quality medical care cannot be achieved, without wasting physicians' time, unless methods are established for separating the well from the sick. Only by separation can priorities be established for entry into any medical care system. The well, worried well, early sick, and sick patients can be funneled into three or four distinct divisions of service, such as health care, preventive maintenance, and sick care. Paramedical personnel could primarily service health testing, health care, and preventive maintenance. Physicians would supervise in varying degrees and provide care for the sick needing judgments of diagnosis and treatment. Sponsorship of such a system falls to the local medical societies.

In the shadow of the cloud of approaching national health insurance, the country obviously cannot afford the comprehensive preventive and therapeutic medical care considered a right of every citizen in the United States. Until the shortage of physicians is long passed, therefore, our major efforts should be directed toward treating those who are ill while gradually developing a concept of practicing preventive medicine. This could be done by a prepaid program in which everyone seeks the medical care he needs. To do this, the amount of medical care any group of patients needs in one year must be determined and services defined that can be provided. The care, while physician oriented, would invite direct control of the amount and at minimal expense. With the present shortage and maldistribution of manpower and facilities and the high cost, no system can guarantee complete range of possible services to everyone.

A foundation for medical care, privately or publicly financed, could be established for development and delivery of medical services at a reasonable cost. It would allow the patient the American tradition of free choice of a personal physician and hospital, offer the fee for service concept, and provide local control of over-utilization or under-treatment through "peer review" activities. Thus, the foundation would establish minimum standards for health care as practiced in the community, offer broad coverage within a reasonable cost level, and accept the service principle of insurance. Participating physicians would

accept a schedule of fees based upon a relative value study.

A foundation serves the purpose of allowing every area, through a physician controlled organization, to influence the changes taking place rather than wait for them to be foisted on the profession by third parties.

Medical foundations may be corporations of state, county or local medical societies that design, promote and monitor prepaid medical care programs for their areas. They are different from health maintenance organizations such as Kaiser-Permanente* or New York's Health Insurance Plan as sponsored by HEW through which members of county medical societies or any other organizations agree to furnish health care to predetermined populations for a flat annual rate. Diminished red tape and avoidance of third party collection delays is the bait hiding the hook of comprehensive prepaid medical care on a publicly funded basis.

While proposing a minimum health insurance through expansion of so-called Health Maintenance Organization, Washington will demand national standards of competency, continuing education and recertification, categorizing the profession as either primary physician (GP's, pediatrician and internist) or specialist and will inevitably secure greater control of methods of practice and fees for service.

Medical Care Foundations calling for cooperation between physicians, the public, hospitals, insurors, government, labor and industry would provide the private practitioner with his strongest bargaining power. In other words a foundation is really nothing more than a highly organized active committee of a medical society.

C.M.C.

*First foundation organized in San Joaquin was for the purpose of counteracting the take over of the delivery of medical care by K-P.

On completing twelve issues of the Journal, the Editor is grateful for the indulgence of the readers and the many contributing authors, wishing to thank all those who submitted scientific manuscripts and those who wrote on request. It appears almost impossible to get the Journal out by the first of every month but there have been few complaints. Maybe a little sleep has been lost but it's been a lot of fun fabricating admiration for the many dedicated, conscientious people, (practicing physicians, allied health personnel and those in the field of medical education) with whom we've corresponded. Most issues have been what the editorial staff likes, yet trying to anticipate the interest of the private practitioners, including items of local interest and local physicians of prominence as well as expounding on some of the problems of organized medicine in Florida. All of this has been accomplished only with the help of our Managing Editor, who, week after week, month after month, has been on the job, always agreeable, inspiring, eager and anxious to publish an interesting Journal. The cover on last month's Drug Abuse issue was her creation, but modestly, she did not include a credit line, rightly hers.

C. M. C.

On April 20, the reimbursement of Medicaid payments to doctors was cut to 15 per cent of charges due to insufficient funds. No other services were so affected.

Dean's Page

Editor's Note: Beginning with this issue is a feature which will add one more chore to the already overworked physician heading each of our medical schools. This will be a monthly page to which they have agreed to contribute at quarterly intervals in order to improve communications between our centers of learning and the practicing physicians. It is hoped that this will work advantageously to all concerned.

New View of the Entrance of Scientists With Ph.D. Degrees Into an M.D. Program at the University of Miami

E. M. Papper, M.D.

There are, coincidentally, two important national needs which the University of Miami School of Medicine believes can be coalesced into a single program of solving both dilemmas. There is a shortage of physicians, and there is a superfluity of scientists in the biological, physical, and engineering disciplines. The latter group are increasingly unemployable in universities and industry, and, yet, they have a superb background in science, which could lend itself to the study of medicine. Most of these men and women, with a Ph.D. degree in one or another of the scientific fields, have already fulfilled many, if not most, of the requirements currently being satisfied in the first two years of medical school education.

At the University of Miami we are planning to bring these exceptionally qualified individuals, in modest numbers, into advanced standing in the third year level of the school of medicine. A preclinical program, adjusted to individual requirements, should enable such people, who are highly motivated and intelligent, to satisfy the requirement of the degree of doctor of medicine in a period of time which should not exceed two calendar years. This program would introduce a new source of highly qualified manpower into medicine where the need is great. This phenomenon is occurring at precisely the time when scientists are unable to secure positions commensurate with their skills because of reduction in financing of various federal programs, the decreased emphasis upon science as a career in the national interest, and the economic recession which has almost entirely closed employability in industry in scientific research.

These facts, coupled with the increased social consciousness of these individuals, has led them back toward the medical career that they might have chosen had there not been the inducement of federal emphasis on space programs and the prestige of a career in "pure" science. These individuals are applying, in many instances, for admission to medical school, and are being considered for the first year of medical education. It is our firm conviction at the University of Miami that advanced standing is not only justified, but would reduce the enormous waste of exceptional national talent which is already taking place. It is our plan to accept not fewer than 10 nor more than 20 qualified individuals in the biological, physician or engineering sciences into advanced standing in the special two-year program, which we expect to begin in July of 1971. The students will be carefully selected by a special Admissions Committee of three clinicians and three basic scientists. Each student accepted will be required to take Part I of the National Board of Medical Examiners examination. This examination will serve as a screening process to determine the validity of waivers of courses in the basic science depart-

Dr. Papper is Vice President for Medical Affairs and Dean, University of Miami School of Medicine, Miami.

ments, depending on individual proficiencies. The examination should also aid in the design of a curriculum, which is adjusted to the individual needs of the student. In those instances where deficiencies exist, remedial course-work will take place in the months of July and August to the degree that is possible by the time available.

These individuals will have a course in basic science, of the sort they have not had, which will be emphasized in the period from July to November. This interval will be divided into a ten-week period for remedial courses and an eleven-week period of the basic medical science course-work that many of these individuals will not have had. On the completion of this period of twenty one weeks, Part I of the National Board of Medical Examiners will be taken once again to measure accomplishments in the subject for which a waiver of course-work had not been provided. The student will then be admitted directly into the clinical training program or will be required to take additional work in the basic sciences, depending on the results of the examination, and of the evaluation of the faculty.

The basic clinical training program will be identical to the third year course-work for all students. At the end of the overall clinical program of forty eight weeks, Part II of the National Board examination will be required. On the completion of this part of the program which will include the basic science and clinical requirements, the student may elect any one of several paths. It is conceivable that he might have deficiencies which bar him from licensing in certain states. These can be remedied in this interval. He may, if he wishes, enter the regular elective program of the fourth year in the school, or he may proceed to an internship in this, or other medical centers, where affiliations recognizing the special course-work, will be set up. This last option has the added advantage of suggesting to hospitals that interns be admitted at varying times through the year, as students complete their course-work for the M.D. degree.

Our faculty are enthusiastic about this program, but, obviously, consider it an important experiment, rather than a proven fact. It does put a new twist on an old program. The program could best be defined as a Ph.D. to M.D., rather than an M.D./Ph.D. combined program. It is hoped that experience will be gained quickly, and reported to others in the reasonably near future.

▶ Dr. Papper, Box 875, Biscayne Annex, Miami 33152.

Definition of a Foundation For Medical Care

A Foundation for Medical Care is an organization of doctors of medicine, sponsored by a local county medical society. It is a separate and autonomous corporation with its own board of directors. Every physician member of the medical society may apply for membership in the Foundation for Medical Care, which is renewed annually, and upon being accepted, may participate in all programs and activities.

A Foundation for Medical Care is concerned with the development and delivery of medical services and the reasonable cost of health care, whether privately or publicly financed. A Foundation also believes in the American tradition of free choice of a personal physician and hospital by the patient, the fee for service concept, and the local control of over and under-utilization through "peer review."

A Foundation for Medical Care establishes minimum standards for health care as practiced in the community which offer broad coverage within a reasonable cost level. The Foundation accepts the service principle of insurance, thereby making certainty of coverage available to all consumer groups covered by a sponsored program.

Quality of medical care is emphasized through utilization review techniques—both over-utilization and under-utilization, by both physician and the patient.

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Please see facing column for summary of contraindications, precautions, and adverse reactions.

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Indications *Male:* Replacement therapy in testicular hormone deficiency states. Prevents atrophy of the accessory male sex organs following castration for as long as therapy is continued. Impotence and male climacteric symptoms when due to androgen deficiency. Primary eunuchoidism and eunuchism. Delayed puberty when established as not a simple familial trait. Indicated for those symptoms of panhypopituitarism related to hypogonadism, however, appropriate adrenal cortical and thyroid hormone replacement therapy remain of primary importance. *Female:* Palliation of androgen-responsive, advanced, inoperable breast cancer in women between 1 and 5 years postmenopausal or women in whom castration has shown the tumor to be hormone dependent. Prevention of postpartum breast manifestations of pain and engorgement; there is no satisfactory evidence that this drug prevents or suppresses lactation per se. In osteoporosis androgens may be of adjunctive value to adequate considerations of diet, calcium balance, physiotherapy and general health promoting measures. *Males and Females:* In the treatment of protein depletion states which occur in geriatric patients, in debilitation states, in chronic corticoid therapy, resistant fractures; cryptorchidism; creating a positive nitrogen balance, tissue repair and other anabolic effects. Androgenic steroids may produce a response in aplastic anemias, myelofibrosis, myelosclerosis, hypogenic myeloid metaplasia and hypoplastic anemias due to malignancy or myelotoxic drugs. Androgens are not of value in other anemias.

Contraindications Pregnancy (may virilize female fetus), mammary carcinoma in the male, prostatic carcinoma, severe liver disease, severe cardiorenal disease and severe persistent hypercalcemia.

Precautions Employ with caution in young boys to avoid precocious sexual development and premature epiphyseal closure. Androgens tend to promote retention of sodium and water, therefore, watch for edema—particularly in the elderly. Incidence and severity of edema have been minimal and have been associated only with high doses used for palliation of breast cancer. Hypercalcemia may occur, particularly in patients with metastatic breast carcinoma; if this occurs the drug should be discontinued. Changes in liver function tests, such as increased BSP retention and SGOT levels, can occur during therapy. Jaundice has been rarely reported. If liver function tests are altered, discontinue medication or reduce dose. Priapism is indicative of excessive dosage and is indication for temporary withdrawal of drug. When treating protein depletion states or osteoporosis, an adequate diet should be provided and prolonged immobilization avoided whenever possible. When treating aplastic or hypoplastic anemias, androgen therapy should not replace other measure such as transfusion, correction of iron deficiency, antibacterial therapy, and the use of corticosteroids.

Adverse reactions Nausea, dyspepsia, menstrual irregularities, hepatic dysfunction, priapism, edema, precocious sexual development, and premature epiphyseal closure in young patients have been reported. *Male*—Prolonged administration or excessive dose may cause inhibition of testicular function with oligospermia and decreased ejaculation volume. *Female*—Large doses or prolonged administration may produce masculinization with signs such as hirsutism, deepening of the voice, enlargement of the clitoris, acne, and sometimes, increased libido.

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The Medical Foundation Concept in the Delivery of Health Care

There are various definitions concerning the concept of a medical foundation, though basically this is formed to promote, develop and encourage the distribution of medical services by its members to the people of a given area at a cost reasonable to both the patient and the physician; to preserve the right of freedom of choice; to protect the public health and to preserve the physician-patient relationship and the innumerable benefits derived from this relationship; and to promote peer review accountability to delimit utilization, improve quality and control costs.

The physicians in the Foundation would agree to a fee for a particular procedure and then ask the industry or employers to write contracts which would provide inclusive care for the terms of the agreed upon fee for medical services. The Foundation would then endorse this contract, the patient would have protection provided by this insurance and the doctor could furnish a wide scope of comprehensive services at a reasonable charge.

This system is viable when the physician members of the Foundation agree on the set fees and when insurance and industry agree to permit such comprehensive coverage in the health contracts.

This system also works when the quality of medical care and the control of costs are overseen by a Peer Review Committee thus protecting the patient and the physician.

Reprinted from the Westchester Medical Bulletin, Vol. 39. March 1971.



Letters

Dear Clyde:

Thank you for letter just received. So glad you two could come. Have heard lots of complimentary things about the two Clydes. Hope that Clyde Jr. can speak to our young people sometime.

Just saw something that makes my blood boil. A newspaper article by one of our movie critics who is not usually stirred by nudity or obscenity in the movies that we get these days, but seems to think that "Doctors Wives" is "just plumb ridiculous." You know a large number of doctors, interns and residents, and some of their wives and nurses and you know that we have some bad eggs (not as many, I am sure, as some authors seem to think) but to brand the whole profession, as a group, as playboys and prostitutes! This is certainly a case for libel and defamation of character. As you know, after your mother died, I married a doctor's widow, and her son Joe, also a doctor, and Betsy, her daughter-in-law, are as devout Christians as I have ever known.

As an active individual in the state medical association, is there any use in your organization giving this the lie, or is it best to just take it? Somehow, I believe, degraded as the movies have become, I have never known them to dare to attack a whole class or even a race before.

I know that any sane person knows how damnably untrue this is, but should we let them get away with it as if the reputation of a whole noble profession meant nothing?

You see, I am weak in the knees but my mind won't stop working! What do the doctors think? They will see the ads in the papers. "Doctors Wives" is showing there now likely as it is here and with that kind of scandal will undoubtedly have a long run.

Perhaps the best thing is to let it go—it might just advertise it more. I don't always get agitated over these things—I've seen everything, but sometimes it is too much and I'm a born crusader.

As ever, Dad

Dear Dr. Collins:

Both personally and on behalf of the staff and all of the others associated with the Florida Regional Medical Program, we should like to express our thanks for the editorial on FRMP which appeared in the February, 1971 issue of the Journal. We thought the editorial was a fair, objective appraisal not only of the problems but also of the progress that the program has made.

There is certainly no question about the problems we have had and no one knows them better than you since you have had an opportunity to view them firsthand as a member of the Board. We feel that we have made considerable progress in solving these problems and with the continued cooperation of the physicians of Florida we look forward to even greater contributions from FRMP in the future.

Again, many thanks for the editorial and with kindest personal regards and best wishes.

Granville W. Larimore, M.D.
State Director, FRMP, Inc.
Tampa

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t least in these numbers. For they represent the vast inical experience with BUTISOL Sodium (sodium utabarbital). For more than 30 years, doctors have elied on its relaxing sedative effect... have, in fact, ade it one of their 50 most frequently prescribed edications. (Prescribing it over 6½ million times st year alone).

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*Based on surveys of overage daily prescription costs.

Contraindications: Porphyria or sensitivity to barbiturates.
Precautions: Exercise caution in moderate to severe hepatic disease. Elderly or debilitated patients may react with marked excitement or depression.
Adverse Reactions: Drowsiness at daytime sedative dose levels, skin rashes, "hangover" and systemic disturbances are seldom seen.
Warning: May be habit forming.
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3/26/68
Following one month of therapy. Intense erythematous reaction is seen at sites of keratoses. Normal skin has not reacted. Some areas which had reacted initially have undergone healing despite continued topical application of 5% 5-FU.

6/11/68
Ten weeks after discontinuance of therapy. All areas have healed complet Residual mild erythema remains in so areas. This patient also had seborrheic keratoses which, as expected, have no reacted. There is no evidence of residu lesions or recurrences.



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Two to four weeks constitutes a typical course ...Efudex therapy. The response is usually characteris... and predictable. After three or four days of treat...nt, erythema begins to appear in the area of keratoses. ...is is followed by an intense inflammatory response, ...ling and occasionally moderate tenderness or pain. ...e height of the inflammatory reaction generally occurs ...o weeks after the start of therapy, and then begins ...subside as treatment is stopped. Within two weeks of ...continuing medication, the inflammation is usually ...ne. A mild erythema may remain for two or three ...nths before gradually receding. Since this response ...so predictable, lesions which do not respond ...ould be biopsied.

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Efudex is available as a 2% or 5% solution or a 5% cream. It is applied twice daily by the patient ...th a nonmetal applicator or suitable glove.

Before prescribing Efudex, however, two im...rtant considerations: First, please consult the com...ete prescribing information for precautions, warnings and adverse reactions. Second, advise the patient that treated lesions should respond with the characteristic but transient inflammation. A positive sign that Efudex is working for them.

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Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

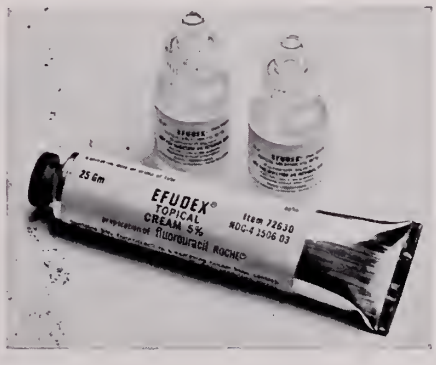
Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

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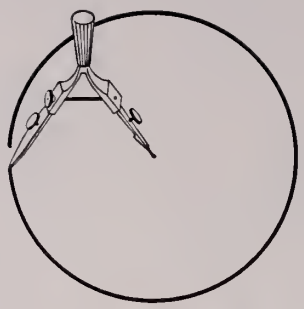
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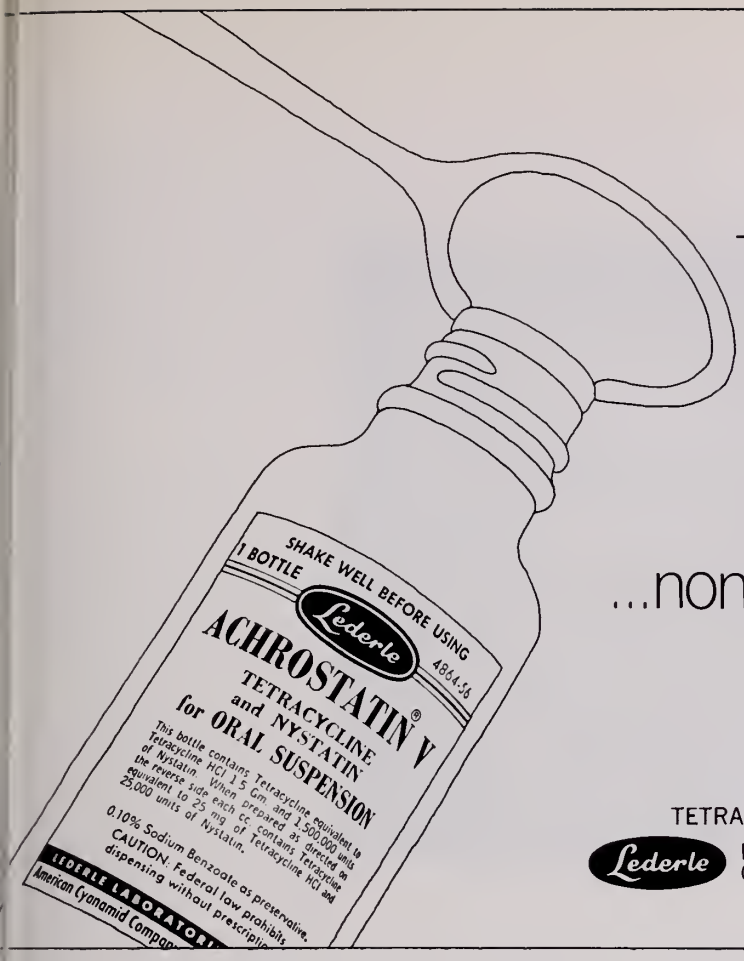
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Jim Cook—Our Outgoing President

JOSEPH P. HENDRIX, M.D.

We, in Florida medicine, should take a few moments to pay tribute and say thanks to our outgoing President, Jim Cook. As we all knew he would, watching him in other positions of responsibility in the Florida Medical Association, he has given our organization outstanding leadership and guidance. Anyone watching him perform in such trying situations as arose during his terms as speaker of house, knew this would be true. He has had many new, refreshing and progressive ideas to contribute to the growth of Florida medicine during this year. Here are a few of these highlights. The Membership and Discipline Committee has been enlarged and developed as a valuable investigating resource for both the Judicial Council and the Florida Board of Medical Examiners. Since the last annual Florida Medical Association meeting there have been two public hearings in an effort to have a fair fee schedule adopted under the Florida Workmen's Compensation program. Jim Cook has always been outspoken in behalf of Florida physicians on this matter, as well as being instrumental in more wide spread utilization of Florida physicians in this and other state programs. As a result of the latest meeting, January 4, 1971 a new fee schedule was announced, but, in the opinion of the Board of Governors, it is still inadequate. And so, a petition for still another hearing was filed on behalf of Florida Medical Association in March, and a hearing was set for April 21.

Dr. Cook should be given a major share of credit for a successful campaign for American Medical Association members which netted Florida another seat in their House of Delegates, making a total of six. Jim has always been a tremendous ambassador for Florida medicine in the American Medical Association as well as other national organizations.

Better lines of communication were established

between Florida Medical Association headquarters in Jacksonville and the officers and members throughout the state and their component medical societies. The organizational news section in the Journal was expanded and a new publication, "Gray Paper," made its debut. This newsletter is distributed, as developments warrant, to officers of the association and component medical societies, chairmen of councils and committees and others.

Jim has always been able to use his happy-go-lucky, low pressure approach to keep things moving forward in all segments of Florida medicine. The Committee on Hospitals and Extended Care Facilities completed work on a model constitution and by-laws and rules and regulations for hospital medical staffs.

Florida Medical Association continues its policy of keeping in touch with the Florida legislature and Florida's congressional delegation through the key contact program. In March of this year, the annual congressional visit was held in conjunction with the AMA-AMPAC Public Affairs Workshop in Washington. Jim learned his way around Tallahassee and Washington and has been active in the Public Affairs Committee movements.

On the national scene in Florida medicine, we have seen the Peer Medical Utilization Review Committee and the local peer review committee assume roles of ever increasing importance with respect to the Medicare program. On February 18, President Cook and other Florida Medical Association officers met with Governor Askew in Tallahassee. Results of this meeting included the Governor's agreement to appoint a Governor's Steering Committee on Health, and to consult the Florida Medical Association's gubernatorial appointments that touch on the health care field. Florida Medical Association's ad hoc Committee on Drug Abuse was born and mounted an ongoing program during Dr. Cook's presidency. In addition to Florida Medical Association, this hard-working committee has input from the fields of law, pharmacy, law enforcement and education. Dr. Cook has always been instrumental in establishing better channels of communications between Florida medicine, students and educators in our medical schools. He has been a strong proponent of the preceptor program. Activation of the Florida Joint Commission on Medical Education and the ad hoc Committee on Liaison with Medical Students will improve communications between students and teachers in our three existing medical schools.

Dr. Cook's presidency saw the first full year of operation of Florida Medical Association's Capitol office in Tallahassee. Two fulltime members of the Florida Medical Association staff are assigned to this office, which provides the Association with a direct day-to-day liaison with the legislative and executive branches of state government. In addition to communicating the program of Florida Medical Association to the legislature, the Capitol office is always prepared to assist the legislature and other agencies of government with information on medical matters when called upon to do so.

The ad hoc Committee to Study the Structure of the Florida Medical Association was established during the 1970 session of the House of Delegates. This Committee has been diligent in its study of the Florida Medical Association organization and the structures of other state medical associations during the past year.

These are just a few of the things involved in Jim Cook's year at our helm. Things that you will see and feel and will continue to influence Florida medicine for years to come.

There will be Jim, picking at his sideburn, lending that little element of levity when needed, but always giving that stabilizing effect that lends harmony and enables Florida medicine to move ever forward and upward. Jim, you may think you harmonize best with a banjo and "Birmingham Jail," but we know you harmonize best in Florida medicine.

▶ Dr. Hendrix, 324 Williams Avenue, Port St. Joe 32456.

We search the world for truth; we cull
The good, the pure, the beautiful,
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And all old flower-fields of the soul;
And, weary seekers of the best,
We come back laden from the quest,
To find that all the sages said
Is in the Book our mothers read.

John Greenleaf Whittier

Many Thanks

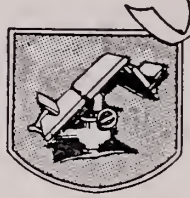
During the past year, our Association has accomplished much because of the unceasing hard work of many dedicated physicians, all of whom were led and inspired by Jim Cook. If you were to poll the group individually, each would recount a different but exemplary event that personifies Jim's leadership. Looking back beyond this year, I was impressed as Jim's capabilities grew under our eyes when he moved from Vice-Speaker to Speaker of the House and where, with experience and study, his command of each situation became polished and sure. No longer getting mixed-up or mad, he was able to guide the many emotional and heated debates on controversial issues with which the delegates tried his metal. This last year, I continued to admire his leadership, but there was one time which made me more than ever aware of his capabilities and his grasp of medical problems. This was at the first Board of Governors meeting I ever attended in sultry Jamaica late on a hot afternoon at the end of the second day of discussion. Some long report, of which I could make neither heads nor tails, was being read; Jim was sitting at the head of a horseshoe shaped table with his eyes closed, leaning back in his chair, apparently taking three winks. Suddenly the report was interrupted by Warren Quillian, who said we might as well convene the meeting for the president was asleep. At this, Jim, without opening his eyes retorted that he had not missed a word and repeated verbatum the last two sentences of the report in progress. That let us know that Jim was very much in command.

At the end of his tenure in office, I'm sure that this conscientious and hardworking president will find much to do to stay involved in, and, to aid organized medicine to do our best to provide efficient care for all the people of Florida.

Jim, you deserve a well earned rest, but knowing you, that is one word not in your vocabulary. Many, many thanks from all of us.

C. M. C.

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Socioeconomic Panel at Annual Meeting

A panel program of socioeconomic topics will be a feature of the 97th Annual Meeting of the Florida Medical Association this month.

Dr. James T. Cook of Marianna, President of FMA, will preside at the general session beginning at 11:00 a.m. on Friday, May 7, at the Americana Hotel in Bal Harbour. The program will take the place of the annual Baldwin Lecture.

The program for the general session will be as follows:

"Peer Medical Utilization Review," James B. Byrne, M.D., Chairman of the FMA Committee on Peer Medical Utilization Review.

"Foundations for Medical Care," James L. Borland Jr., M.D., Chairman of the Board of Trustees, Foundation for Medical Care in Duval County, Inc.

"Medicredit—National Health Insurance and Health Maintenance Organizations," Joseph C. Von Thron, M.D., Chairman of the FMA Council on Legislation and Public Agencies.

"Workmen's Compensation," Joseph G. Matthews, M.D., Chairman, FMA Ad Hoc Committee on Workmen's Compensation.

Additional information about the Annual Meeting was contained in an issue of Briefs, mailed to the entire FMA membership early last month.

Committee on Public Health

A meeting of the Committee on Public Health was held in Jacksonville on February 14, with the chairman, C. L. Brumback, M.D., of West Palm Beach, presiding.

The Committee went on record that all possible support should be lent to state legislation providing for fluoridation of public water supplies.

Considered and approved were recommendations from the Committee on State Legislature: that 1) the Committee on Public Health make its members available to work closely with committees of the Legislature; 2) a follow-up conference on PKU and other metabolic disease testing be held; 3) FMA consider the possibility of holding a conference on environmental quality; and 4) FMA participate in an organization known as "Conservation-70's."

Approved by the Committee was a plan of the U.S. Public Health Service to assign two officers to the Collier County Health Department to assist in the rendering of medical care to migrant farm workers, made contingent on similar written approval from the Collier County Medical Society.

Among other actions, the Committee suggested that FMA support full implementation of Florida's implied consent law, including adequate funding.

The Leukemia Society of America, Florida Chapter

The Florida Medical Association's Council on Voluntary Health Agencies gave official recognition for the first time to the Florida Chapter of the Leukemia Society of America.

The Council met in Jacksonville to review the activities of the Leukemia Society and several other voluntary health agencies which operate in Florida. The chairman, Frank L. Creel, M.D., of Pensacola, presided at the meeting.

The Council recommended that FMA's 41 component medical societies be surveyed to determine what relationship each has established with the voluntary health agencies in its area; and to determine how physician liaison representatives are selected.

In other action, the Council endorsed Senate Bill 168 (compulsory immunization) and directed that its endorsement be communicated to the FMA Council on Legislation and Public Agencies.

MEETINGS

Approved by FMA Committee on Postgraduate Education

MAY

3- 8 Comprehensive Training in Coronary Care for Physicians, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., c/o Heart Association, Box 10100, St. Petersburg 33733.

7- 8 Clinical Genetics—Cytogenetics Seminar, Sacred Heart Children's Hospital, Pensacola.

12-13 Greater Miami Pediatric Seminar, Auditorium, Mailman Child Development Center, Miami. For information: Jack Eff, M.D., 2040 N.E. 163 St., N. Miami Beach 33162.

15 "Physiological Approach to Management of Peptic Ulcer Disease," by M. Michael Eisenberg, M.D., Minneapolis, sponsored by Lakeland Graduate Medical Assembly, Lakeland General Hospital, Lakeland.

JUNE

14-18 Fifth Annual Workshop in Electrocardiography, Redington Beach, St. Petersburg. For information: Henry J. L. Marriott, M.D., St. Anthony's Hospital, St. Petersburg 33705.

NOVEMBER

19-20 Tenth Annual Physicians' Seminar on Respiratory Diseases and Workshop for Allied Health, Perdido Bay Inn & Golf Club, Pensacola. For information: Jay D. Williams Jr., M.D., Box 8127, Jacksonville 32211.

National and Regional Meetings Held in Florida

JULY

2- 5 Tenth Anniversary Meeting, Cuban Medical Association in Exile, Four Ambassadors Hotel, Miami. Pres.: Dr. Enrique Huertas, Box 1016, Coral Gables, Fla. 33132.

AUGUST

26-29 United Ostomy Association, Diplomat Hotel, Miami Beach. Exec. Dir.: Donald P. Binder, 1111 Wilshire Blvd., Los Angeles 90017.

30-Sept. 2 Western Hemisphere Nutrition Congress, Americana Hotel, Miami Beach. Info.: AMA Council on Foods and Nutrition, 353 N. Dearborn St., Chicago 60610.

OCTOBER

4- 7 American Academy of Family Physicians, Miami Beach. Exec. Dir.: Mr. Mac F. Cahal, JD, Volker Blvd. at Brookside, Kansas City, Mo. 64112.

12-16 Congress of Neurological Surgeons, Americana Hotel, Bal Harbour. Sec.: Bernard S. Patrick, M.D., University Medical Center, 2500 N. State St., Jackson, Miss. 39216.

NOVEMBER

1- 4 Southern Medical Association, Miami Beach. Exec. Dir.: Mr. Robert F. Butts, 2601 Highland Ave., Birmingham, Ala. 35205.

2 George Papanicolaou Memorial Seminar in Gynecologic Pathology, Fontainebleau Hotel, Miami Beach. Dir.: George Ioannides, M.D., 1830 S.W. 99th Ave., Miami 33165.

4- 6 Southern Thoracic Surgical Association, Tampa. Sec.-Treas.: James W. Brooks, M.D., 1200 E. Broad St., Richmond, Va. 23219.

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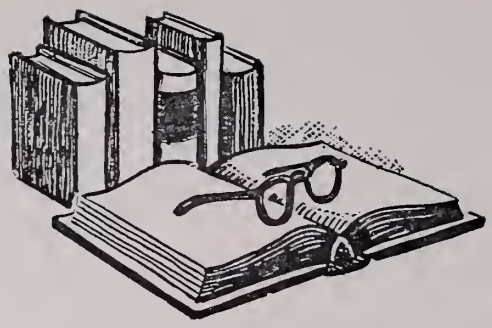
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Book Reviews

Current Dermatologic Management edited by Stuart Maddin, M.D. Illustrated. Pp. 330. Price $38.75. St. Louis, The C. V. Mosby Company, 1970.

This book is an up to the minute compendium of skin diseases with individual topics written by one hundred seventy-six co-authors. What sets it apart from other dermatologic texts is the breakdown into three sections—dermatologic procedure, therapeutic management and drug index, as well as an innovative alphabetical listing of the skin diseases in the middle section.

The first section contains outstanding descriptions of hair transplant surgery, dermabrasion, chemosurgery, Mohs' technique and x-ray therapy. These different modes of dermatologic surgery are well detailed, having been so often ignored in the past.

The second section of therapeutic management has succintly written material with up-to-date references at the end of each topic. There are seventy large colored plates. However, in future editions, more care should be taken in their selection as many are not clear examples. Plates of the more common entities such as contact dermatitis, etc., could be pictured in smaller view, allowing more space for more unusual dermatoses.

The last section contains an excellent drug index describing the chemistry, mode of action, absorption, distribution and excretion, dermatologic indication, side effects and references for each of the drugs listed. Unlike many other textbooks, the treatment is emphasized.

This is an excellent dermatologic text with a well documented section on dermatologic surgery, a dictionary type outline for dermatologic diseases and a useful drug index. The index at the end of the book is completely detailed. Editorial comments are interspersed throughout the text which are helpful in presenting most recent references since the book was published. This book is highly recommended for the dermatologist as well as the interested physician.

Sorrel S. Resnik, M.D.
Miami

Introduction to Medical Science by Clara Gene Young and James D. Barger, M.D. Pp. 295. Price $7.95. Illustrated. St. Louis, The C. V. Mosby Company, 1969.

"Introduction to Medical Science" is written not for the physician, but for paramedical workers. It combines conventional narrative textbook style with programmed instruction, most chapters starting with a few pages of text and ending with program type instructional paragraphs and questions. The book condenses most of clinical medicine into 24 chapters in only 295 pages. The first few chapters are devoted to basic principles of pathophysiology. The rest of the book takes you on a whirl-wind tour of all bodily ills and injuries. In general, the material is well distributed with major chapters covering neoplasia, circulation, infectious diseases and trauma. An unduly large amount of space is devoted to congenital anomalies, particularly cardiac anomalies. These comprise the only illustrations in the book. An appendix in the back of the book contains answers to the programmed text questions and a thorough table of information on infectious diseases. For a book this short to be as comprehensive as it is, it must necessarily be somewhat superficial and over-simplified, if not dogmatic in its approach. This book passed the crucial test with my secretary and technician, who thought the book was written in an interesting manner, was easy to read and contained useful information.

L. H. Jacobson, M.D.
Stockton, Calif.

True friendship is a plant of slow growth.

George Washington

Receipt of the following books is acknowledged. While time and space will not permit review of all books received, medical readers interested in reviewing particular books are invited to address requests to the Editor. Following acceptance of a written review for publication, a reviewer may then retain the book reviewed for his personal or favorite library.—Ed.

The Adolescent Patient by William A. Daniel Jr., M.D. Pp. 444. 76 illustrations. Price $20.50. St. Louis, The C. V. Mosby Company, 1970.

Spectroscopic Approaches to Biomolecular Conformation edited by D. W. Urry. Pp. 314. Illustrated. Price $15.00. Chicago, American Medical Association, 1970.

Urological Surgery. 4th Ed. by Austin Ingram Dodson Jr., M.D. Pp. 617. Price $32.50. 694 illustrations. St. Louis, The C. V. Mosby Company, 1970.

The Low Fat Low Cholesterol Diet by Clara-Beth Young Bond, R.D.; E. Virginia Dobbin, R.D., and Helen F. Gofman, M.D. Pp. 512. Price $7.95. New York, Doubleday Company, Inc. 1971.

Infection Control in the Hospital by the American Hospital Association. Pp. 154. Price $4. Chicago, Illinois 1970.

Development and Legal Regulation of Coercive Behavior Modification Techniques With Offenders by Ralph K. Schwitzgebel, Ed.D., J.D., Harvard University. Pp. 90. Price 45 cents. Public Health Service Publication 2067, U.S. Government Printing Office, Washington, D.C. 20402.

Portrait of Aphasia by David R. Knox. Pp. 120. Price $5.95. Detroit, Wayne State University Press, 1971.

Selective Bibliography of Orthopaedic Surgery. 2nd Ed. By the American Academy of Orthopaedic Surgery. Price $7.25. St. Louis, The C. V. Mosby Company, 1970.

Biological Rhythms in Psychiatry and Medicine by Gay Gaer Luce. Pp. 183. Price $1.75. Washington, D. C., U.S. Government Printing Office, 1970.

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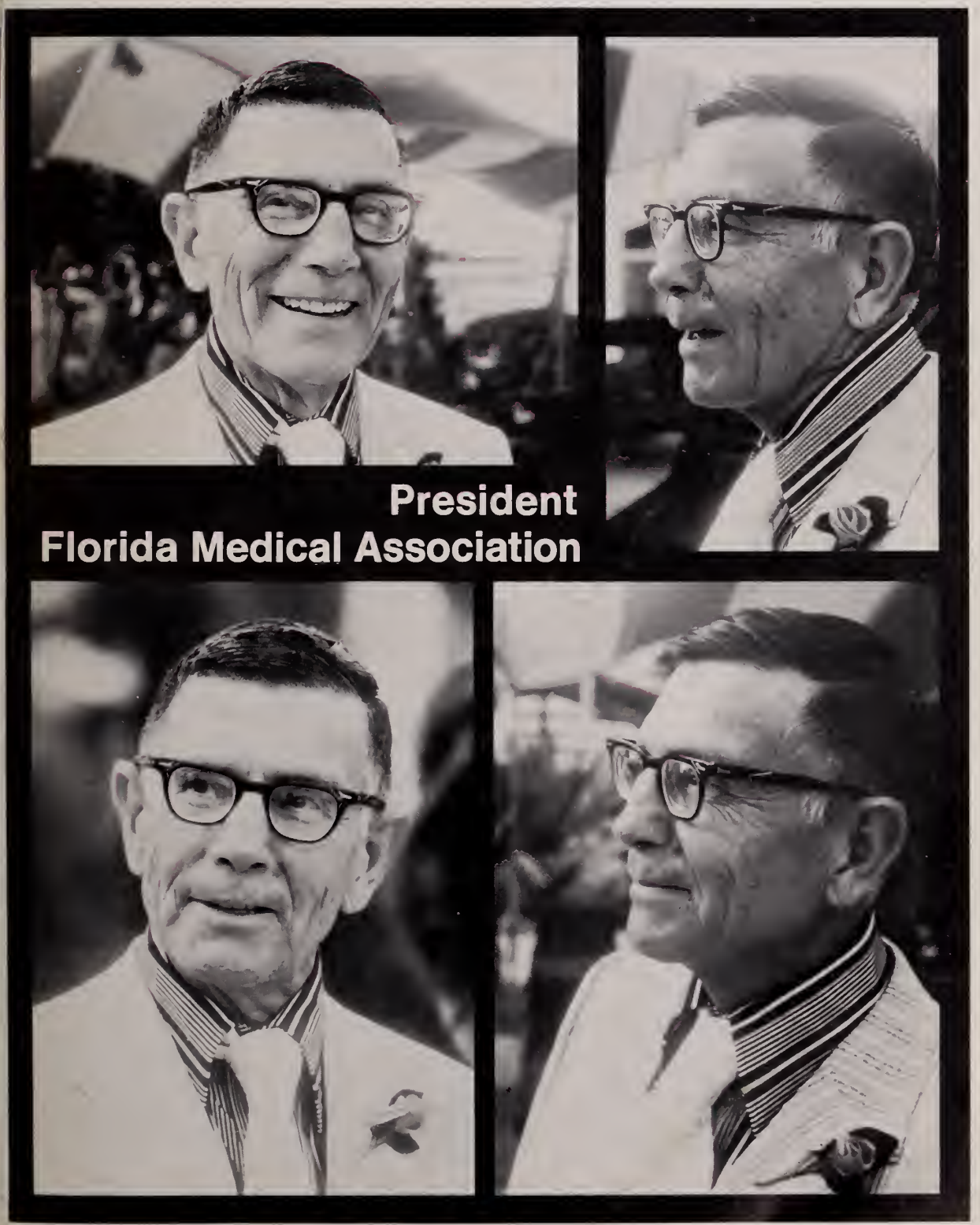
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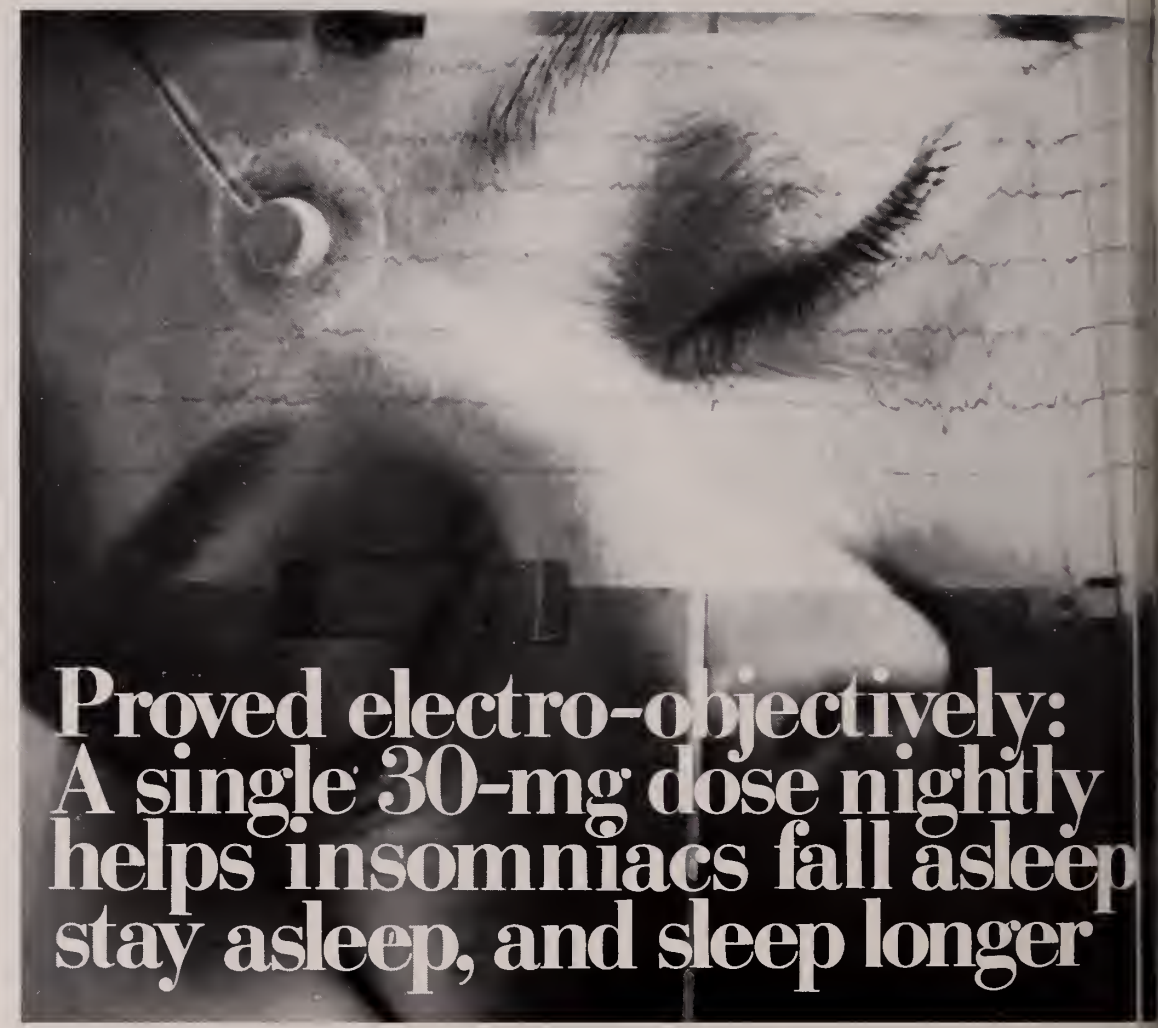
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Moreover, Dalmane 30 mg was found to be useful in all common types of insomnia in which it was studied. Of drugs studied in a sleep laboratory,[1] Dalmane 30 mg was the only one that consistently reduced sleep induction time and maintained sleep nightly for 14 consecutive nights of use.

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Fifty-three controlled studies using paired-night, double-blind crossov design have evaluated Dalmane clinically. In the majority of these, Dalmane (flurazepam HCl) signifi-cantly reduced sleep induction time and increased sleep duration. Dalmane and a placebo were alternated on successive nights in 2010 insomniacs, 1706 of whom were studied for a single night-pair, and t remainder for as many as fifteen paired-nights. A patient preference for Dalmane was apparent in the paired-night studies.

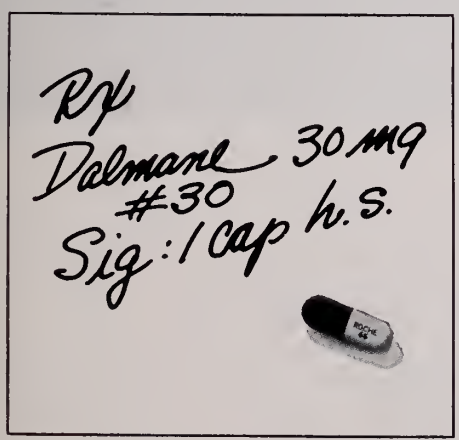
Dalmane was also preferred to cert hypnotics in two separate preferenc studies. In each of two double-blinc studies, Dalmane 30 mg retained effectiveness for the total period of seven consecutive treatment nights according to subjective/objective evaluations.

In summary, Dalmane is useful in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening. It can be used effectively in patients with recurring insomnia or poor sleeping habits, and in acute or chronic medical situations requiring restful sleep.

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References: 1. Kales, A., *et al.:* "Effectiveness of Sleep Medications: All-Night EEG Studies of Hypnotic Drugs," in Proc. 7th Internat. Cong. Electroencephal. and Clin. Neurophysiol., San Diego, Calif., Sept. 13-19, 1969. **2.** Kales, A., *et al.:* "Psychophysiological and Biochemical Changes Following Use and Withdrawal of Hypnotics," in Kales, A. (ed): *Sleep: Physiology and Pathology,* Phila., Lippincott, 1969, p. 331. **3.** Data on file, Medical Department, Hoffmann-La Roche Inc.



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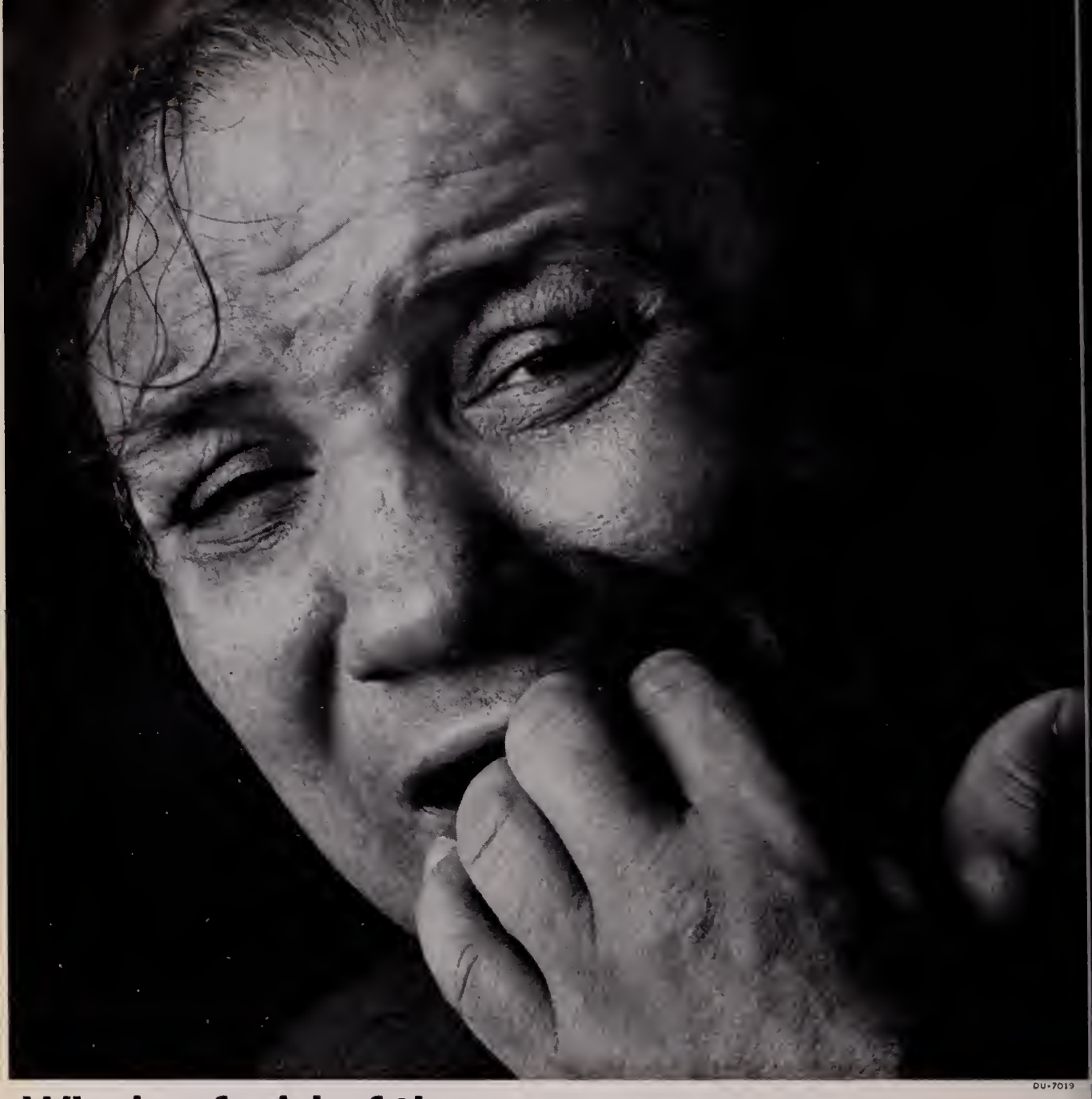
Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

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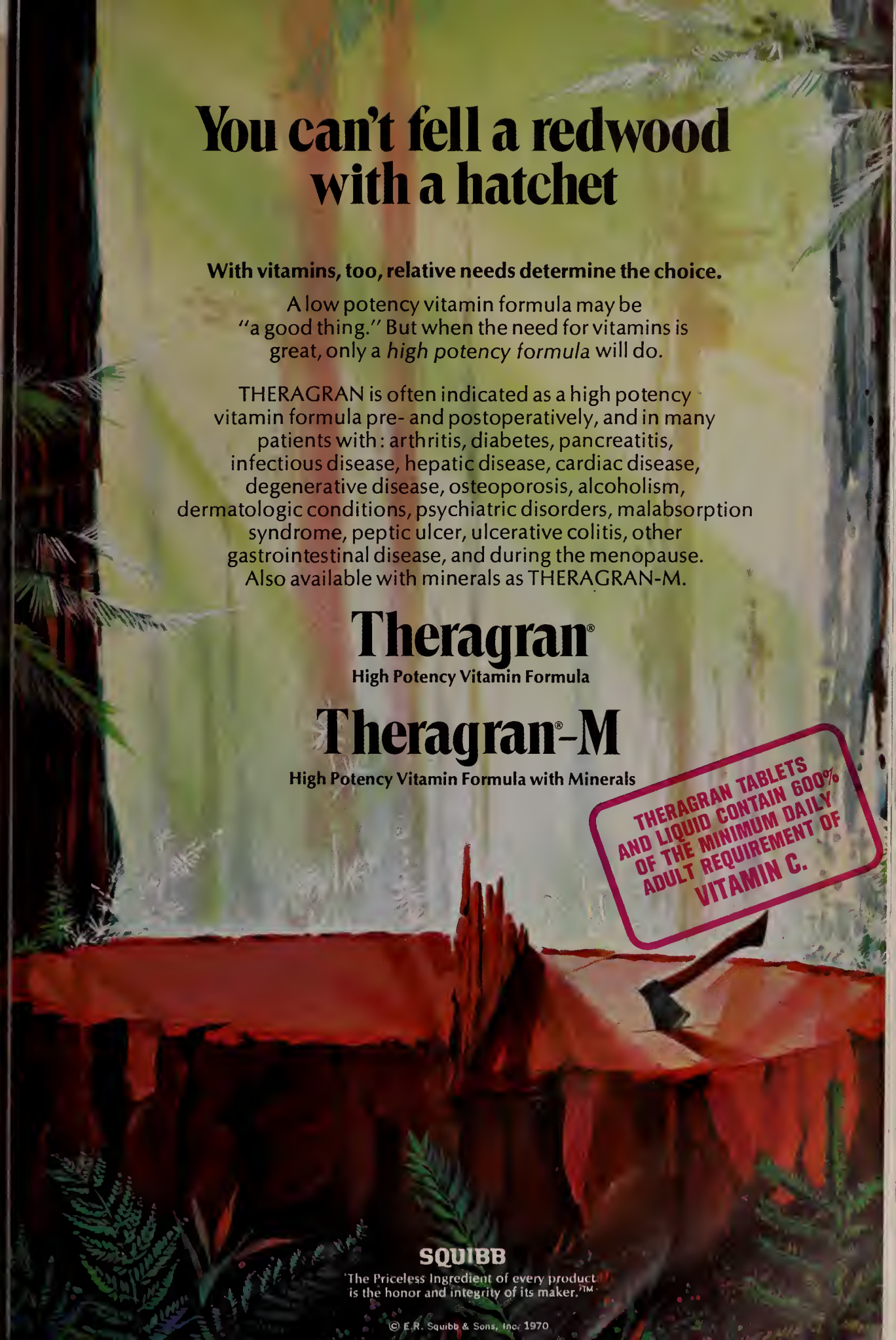
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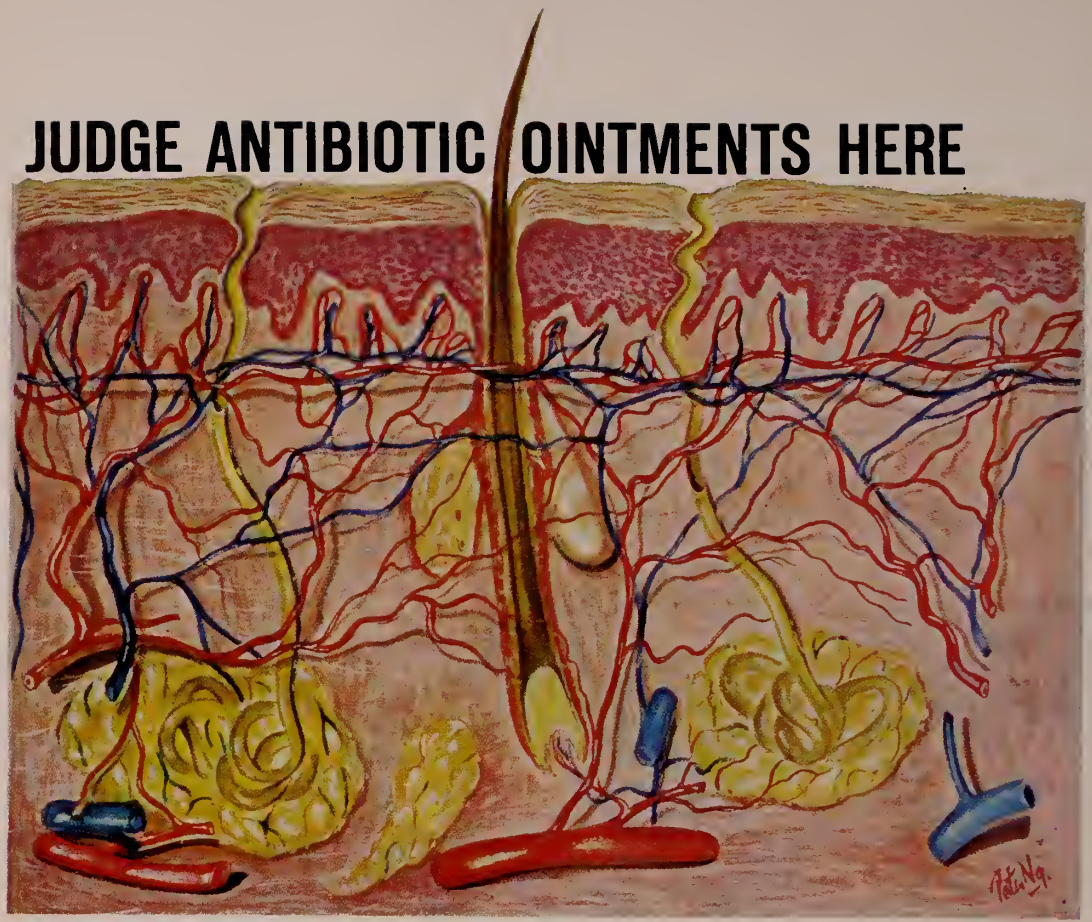
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President's Page



It Will Be a Busy Year

I will have been in office as President of the FMA for approximately one month by the time you read this; however, it is being written a month before the Annual Meeting.

In this first statement I wish to pay tribute to Jim Cook, our immediate past president, as a man who, by dealing with many knotty problems before they could be passed on to me, has made my task easier. I also learned that as the Speaker of our House of Delegates he kept the Board of Governors' meetings orderly and efficient. I am quite fortunate that he will be on the Board to help me in this respect.

I have completed my appointments and we have an outstanding group of Council and Committee members. These are the men and women who will be doing most of the real work of our organization. As you know, the House sets our policies and directions, and the Board and Councils carry out these directives. They will be busy. I'm quite proud of our Florida physicians as men who are extremely knowledgeable, clear thinking and willing to assume the tasks which I have asked them to perform.

In thinking of the problems that may arise during the coming year, it seems to me that the continued expansion of government-related comprehensive medical care may very well take precedence over all others. There are those in places of influence who view medicine as a social science to be used as a vehicle for social change. With this in mind, I commend to you the following passage from Plato:

"Did you ever observe that there are two classes of patients in states, slaves and free men; and the slave doctors run about and cure the slaves or wait for them in the dispensaries—practitioners of this sort never talk to their patients individually, or let them talk about their own individual complaints? The slave doctor prescribes what mere experience suggests, as if he had exact knowledge; and when he has given his orders, like a tyrant, he rushes off with equal assurance to some other servant who is ill; and so he relieves the master of the house of the care of his invalid slaves. But the other doctor, who is a free man, attends and practices upon free men; and he carries his enquiries far back, and goes into the nature of the disorder; he enters into discourse with the patient and with his friends, and is at once getting information from the sick man, and also instructing him as far as he is able, and he will not prescribe for him until he has first convinced him; at last, when he has brought the patient more and more under his persuasive influences and set him on the road to health, he attempts to effect a cure. Now which is the better way of proceeding in a physician?"[1]

1. The Dialogues of Plato Laws translated by Jowett, New York, Random House 2:491, 1937.



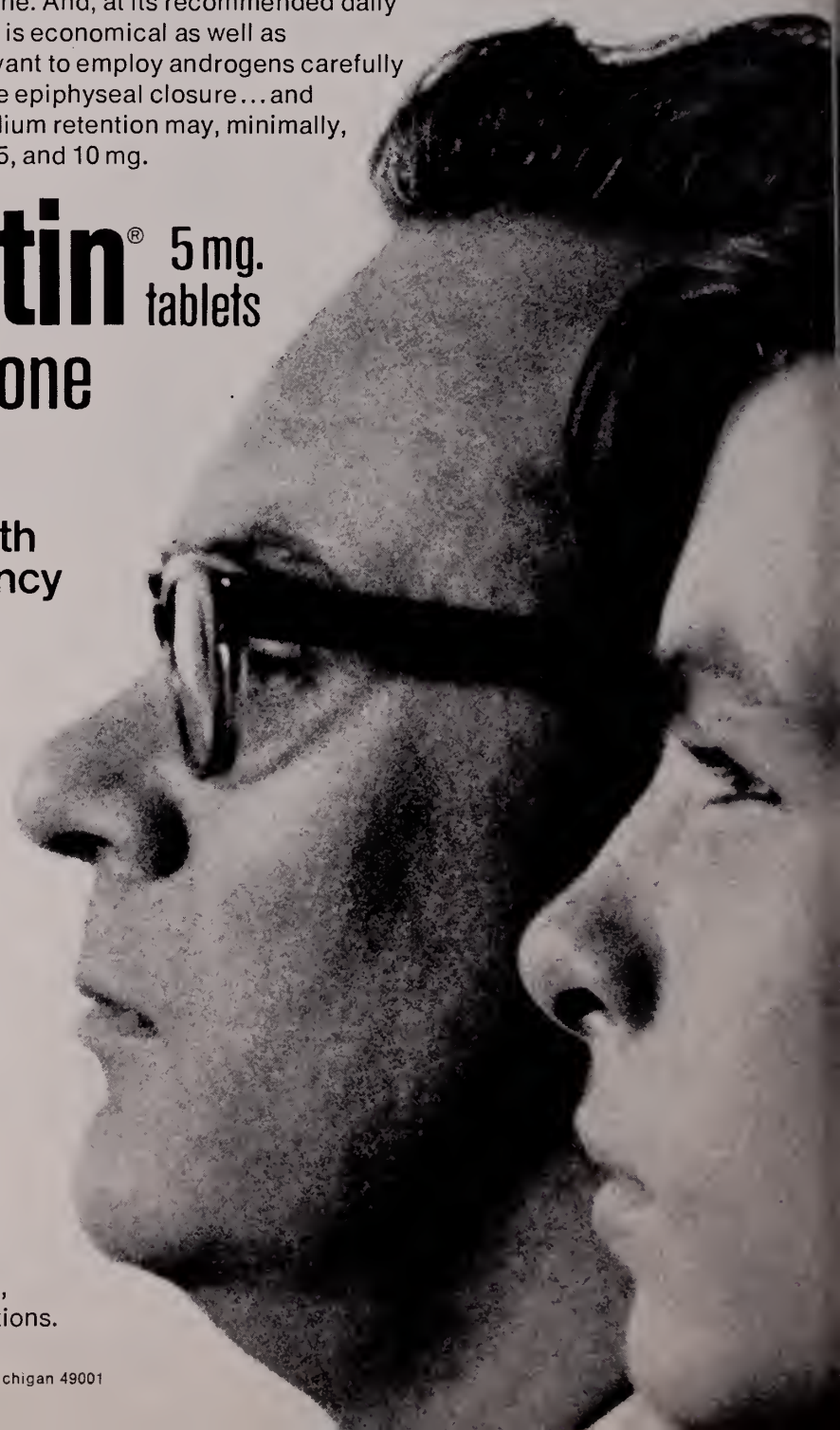
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oral replacement with parenteral-like potency



Please see facing column for summary of contraindications, precautions, and adverse reactions.

Upjohn The Upjohn Company, Kalamazoo, Michigan 49001

otestin®
uoxymesterone, Upjohn)

active androgen about 5 times as potent
rbolic and androgenic activity as methyltes-
ne. Halotestin (fluoxymesterone) induces
ant retention of calcium and potassium,
ention of sodium not marked. Doses below
. daily have little effect in producing
uria.

tions *Male:* Replacement therapy in tes-
hormone deficiency states. Prevents atro-
the accessory male sex organs following
ion for as long as therapy is continued.
nce and male climacteric symptoms when
androgen deficiency. Primary eunuchoid-
d eunuchism. Delayed puberty when es-
ed as not a familial trait. Indicated
se symptoms of panhypopituitarism re-
to hypogonadism, however, appropriate
l cortical and thyroid hormone replace-
therapy remain of primary importance.
: Palliation of androgen-responsive, ad-
, inoperable breast cancer in women be-
1 and 5 years postmenopausal or women
m castration has shown the tumor to be
ne dependent. Prevention of postpartum
manifestations of pain and engorgement;
s no satisfactory evidence that this drug
ts or suppresses lactation per se. In os-
osis androgens may be of adjunctive
to adequate considerations of diet, cal-
alance, physiotherapy and general health
ting measures. *Males and Females:* In the
ent of protein depletion states which oc-
geriatric patients, in debilitation states, in
c corticoid therapy, resistant fractures;
rchidism; creating a positive nitrogen bal-
tissue repair and other anabolic effects.
genic steroids may produce a response in
ic anemias, myelofibrosis, myelosclerosis,
enic myeloid metaplasia and hypoplastic
as due to malignancy or myelotoxic drugs.
gens are not of value in other anemias.

aindications Pregnancy (may virilize fe-
fetus), mammary carcinoma in the male,
tic carcinoma, severe liver disease, severe
renal disease and severe persistent hy-
cemia.

utions Employ with caution in young boys
oid precocious sexual development and
ture epiphyseal closure. Androgens tend
mote retention of sodium and water, there-
vatch for edema—particularly in the elderly.
nce and severity of edema have been
al and have been associated only with
doses used for palliation of breast cancer.
calcemia may occur, particularly in patients
metastatic breast carcinoma; if this occurs
rug should be discontinued. Changes in
unction tests, such as increased BSP re-
n and SGOT levels, can occur during ther-
laundice has been rarely reported. If liver
on tests are altered, discontinue medica-
r reduce dose. Priapism is indicative of
sive dosage and is indication for tempo-
withdrawal of drug. When treating protein
tion states or osteoporosis, an adequate
hould be provided and prolonged immobili-
avoided whenever possible. When treating
tic or hypoplastic anemias, androgen ther-
hould not replace other measure such as
usion, correction of iron deficiency, anti-
rial therapy, and the use of corticosteroids.

rse reactions Nausea, dyspepsia, men-
irregularities, hepatic dysfunction, pria-
edema, precocious sexual development,
premature epiphyseal closure in young
nts have been reported. *Male*—Prolonged
nistration or excessive dose may cause
tion of testicular function with oligospermia
decreased ejaculation volume. *Female*—
doses or prolonged administration may
ce masculinization with signs such as hir-
n, deepening of the voice, enlargement of
clitoris, acne, and sometimes, increased
).

lied *Tablets: 2 mg.*, scored—bottles of 100./
., scored—bottles of 50./*10 mg.*, scored
tles of 50.

additional product information, see your
hn representative or consult the package
lar.

The Upjohn Company, Kalamazoo, Michigan

MED 8-5-S (LQX)

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DBI®-TD
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lowers elevated blood sugar

wo prescribe DBI®-TD (phenformin HCl)

s rt with DBI-TD

Week 1 1 capsule with breakfast may be effective, or a second capsule may be given with the evening meal.

Week 2 Continue effective DBI-TD dosage.

If necessary, add an additional capsule to the A.M. or P.M. dose.

Thereafter Continue effective DBI-TD dosage.

To transfer from sulfonylurea therapy to DBI-TD alone: The first week, withdraw sulfonylurea; start with DBI-TD as indicated in the chart.

To transfer from sulfonylurea therapy to combined therapy with DBI-TD: The first week, continue dosage of sulfonylurea; add DBI-TD as indicated in the chart. When effective regulation of diabetes is attained, sulfonylurea may be reduced and/or withdrawn.

ions: Stable adult diabetes mellitus; sulfonylurea failrimary and secondary. **Contraindications:** Diabetes melat can be regulated by diet alone; juvenile diabetes that mplicated and well regulated on insulin; acute compli- of diabetes (metabolic acidosis, coma, infection, gan-; surgery; severe hepatic disease; renal disease with ; cardiovascular collapse, after disease states associated poxemia. **Warning:** Use during pregnancy is to be avoided. dequate data on the effects of DBI on the human fetus ailable, such use can be considered experimental. **Pre-ns: Starvation Ketosis**, which must be differentiated insulin lack" ketosis, and is characterized by ketonuria e of relatively normal blood and urine sugar, may result xcessive DBI therapy, excessive insulin reduction or ient carbohydrate intake. Adjustment of DBI-TD or dosage, or supplying carbohydrates, alleviates this DO NOT GIVE INSULIN WITHOUT FIRST CHECKING) AND URINE SUGARS. **Lactic Acidosis:** DBI is not recnded in the presence of azotemia or in any clinical situaat predisposes to sustained hypotension that could lead ic acidosis. To differentiate lactic acidosis from ketoacidois recommended that periodic determinations of ketones in the blood and urine be made in diabetics previously stabilized on DBI, or DBI and insulin, who have become unstable. If electrolyte imbalance is suspected, periodic determinations should also be made of electrolytes, pH and the lactate-pyruvate ratio. DBI should be withdrawn and insulin, when required, and other corrective measures instituted immediately upon the appearance of any metabolic acidosis. **Hypoglycemia:** Although hypoglycemic reactions are rare when DBI is used alone, every precaution should be observed during the dosage adjustment period particularly when insulin or a sulfonylurea has been given in combination with DBI. **Adverse Reactions:** Principally gastrointestinal, occurring more often at higher dosage levels; unpleasant metallic taste, continuing to anorexia, nausea and, less frequently, vomiting and diarrhea. Reduce dosage at first sign of these symptoms. In case of vomiting, DBI should be immediately withdrawn. Although rare, urticaria and gastrointestinal symptoms following excessive alcohol intake have been reported. **Dosage:** 1 to 3 DBI-TD 50 mg. capsules daily. **FSN 6505-724-6331. Also Available:** DBI tablets 25 mg. **Supplied:** Bottles of 100 and 1000.

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Peritrate® SA

Sustained Action (pentaerythritol tetranitrate) 80 mg

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See full prescribing information on opposite page.

Peritrate® SA

Sustained Action (pentaerythritol tetranitrate) 80 mg

Indications: PERITRATE SA Sustained Action (pentaerythritol tetranitrate) 80 mg is indicated for the relief of angina pectoris (pain associated with coronary artery disease). It is not intended to abort the acute anginal episode but is widely regarded as useful in the prophylactic treatment of angina pectoris.
Contraindications: PERITRATE SA Sustained Action (pentaerythritol tetranitrate) 80 mg is contraindicated in patients who have a history of sensitivity to the drug.
Warning: Data supporting the use of PERITRATE (pentaerythritol tetranitrate) during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety. This drug can act as a physiological antagonist to norepinephrine, acetylcholine, histamine, and many other agents.
Precautions: Should be used with caution in patients who have glaucoma. Tolerance to this drug, and cross-tolerance to other nitrites and nitrates may occur.
Adverse Reactions: Side effects reported to date have been predominantly related to rash (which requires discontinuation of medication) and headache and gastrointestinal distress, which are usually mild and transient with continuation of medication. In some cases severe persistent headaches may occur. In addition, the following adverse reactions to nitrates such as pentaerythritol tetranitrate have been reported in the literature: (a) Cutaneous vasodilatation with flushing. (b) Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop. (c) An occasional individual exhibits marked sensitivity to the hypotensive effects of nitrite and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration and collapse) can occur, even with the usual therapeutic doses. Alcohol may enhance this effect.
Dosage: PERITRATE SA Sustained Action (pentaerythritol tetranitrate) 80 mg (b.i.d. on an empty stomach), 1 tablet immediately on arising and 1 tablet 12 hours later.
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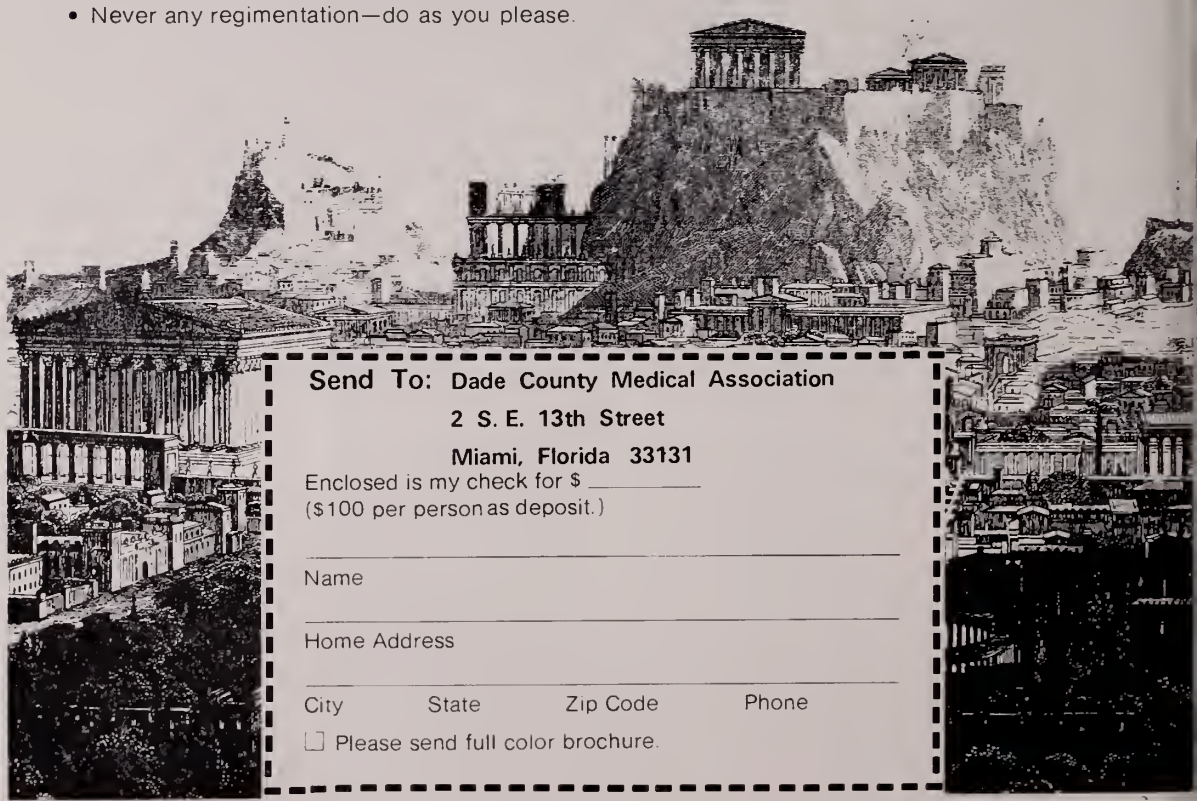
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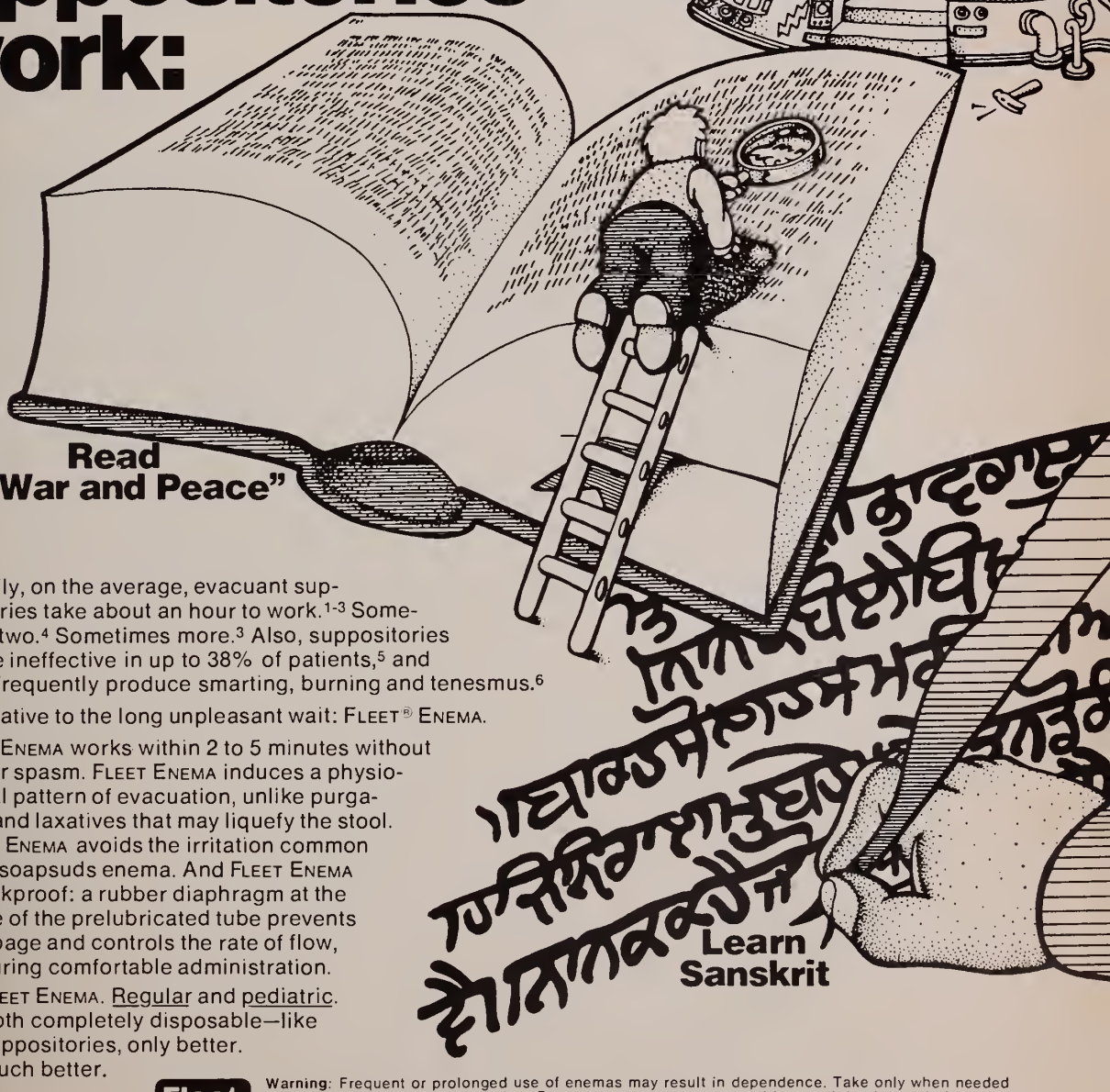
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Actually, on the average, evacuant suppositories take about an hour to work.[1-3] Sometimes two.[4] Sometimes more.[3] Also, suppositories can be ineffective in up to 38% of patients,[5] and not infrequently produce smarting, burning and tenesmus.[6]

Alternative to the long unpleasant wait: FLEET® ENEMA.

FLEET ENEMA works within 2 to 5 minutes without pain or spasm. FLEET ENEMA induces a physiological pattern of evacuation, unlike purgatives and laxatives that may liquefy the stool. FLEET ENEMA avoids the irritation common with soapsuds enema. And FLEET ENEMA is leakproof: a rubber diaphragm at the base of the prelubricated tube prevents seepage and controls the rate of flow, assuring comfortable administration.

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Fleet pharmaceuticals

Warning: Frequent or prolonged use of enemas may result in dependence. Take only when needed or when prescribed by a physician. Do not use when nausea, vomiting or abdominal pain is present.
Caution: Do not administer to children under two years of age unless directed by a physician.

References: 1. Blumberg, N.: Med Times 91:45, Jan., 1963. 2. Sweeney, W. J., III: Amer J Obstet Gynec 85:908, Apr. 1, 1963. 3. Weinsaft, P.: J Amer Gerial Soc 12:295, Mar., 1964. 4. Baydoun, A. B: Amer J Obstet Gynec 85:905, Apr. 1, 1963. 5. Feder, I. A., Flores, A. and Weiss, J.: Amer J Gastroent 33:366, Mar., 1960. 6. Smith, J. J. and Schwartz, E. D.: Western J Surg 72:177, May-June, 1964.

Efudex®
(fluorouracil)
cream/solution

In the treatment of solar/actinic keratoses
An alternative to cold, fire and steel

2/23/68
Before treatment with 5% 5-FU cream. Patient R. G., 78 years old, shows extensive skin changes due to weathering and severe solar/actinic keratoses.

3/26/68
Following one month of therapy. Intense erythematous reaction is seen at sites of keratoses. Normal skin has not reacted. Some areas which had reacted initially have undergone healing despite continued topical application of 5% 5-FU.

6/11/68
Ten weeks after discontinuance of therapy. All areas have healed compl
Residual mild erythema remains in s
areas. This patient also had seborrhe
keratoses which, as expected, have n
reacted. There is no evidence of resic
lesions or recurrences.



ROCHE
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Nutley, N J. 07110

alternative conventional therapy

Efudex (fluorouracil) offers the physician a alternative to cryosurgery, electrodesiccation ld-knife surgery in the treatment of solar/actinic ses. It is effective, comparatively inexpensive and ally well suited for treatment of these multiple s. Important, too, is the highly desirable cosmetic Clinical experience demonstrates that treatment fudex results in an extremely low incidence of g.*

ghly effective

In clinical trials, depending on the dosage form rength used, complete involution occurred in 88 per cent of lesions following treatment. The f recurrence was low, ranging from 1.7 to 5.6 per p to a year after completion of therapy. When sions appeared, repeated courses of Efudex py proved effective.*

dictable rapeutic response

Two to four weeks constitutes a typical course dex therapy. The response is usually characteris- d predictable. After three or four days of treat- erythema begins to appear in the area of keratoses. s followed by an intense inflammatory response, g and occasionally moderate tenderness or pain. eight of the inflammatory reaction generally occurs weeks after the start of therapy, and then begins side as treatment is stopped. Within two weeks of ntinuing medication, the inflammation is usually A mild erythema may remain for two or three hs before gradually receding. Since this response predictable, lesions which do not respond d be biopsied.

o strengths—two sage forms

Efudex is available as a 2% or 5% solution or % cream. It is applied twice daily by the patient a nonmetal applicator or suitable glove.

Before prescribing Efudex, however, two im- nt considerations: First, please consult the com- prescribing information for precautions, warnings and adverse reactions. Second, advise the patient that treated lesions should respond with the characteristic but transient inflammation. A positive sign that Efudex is working for them.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

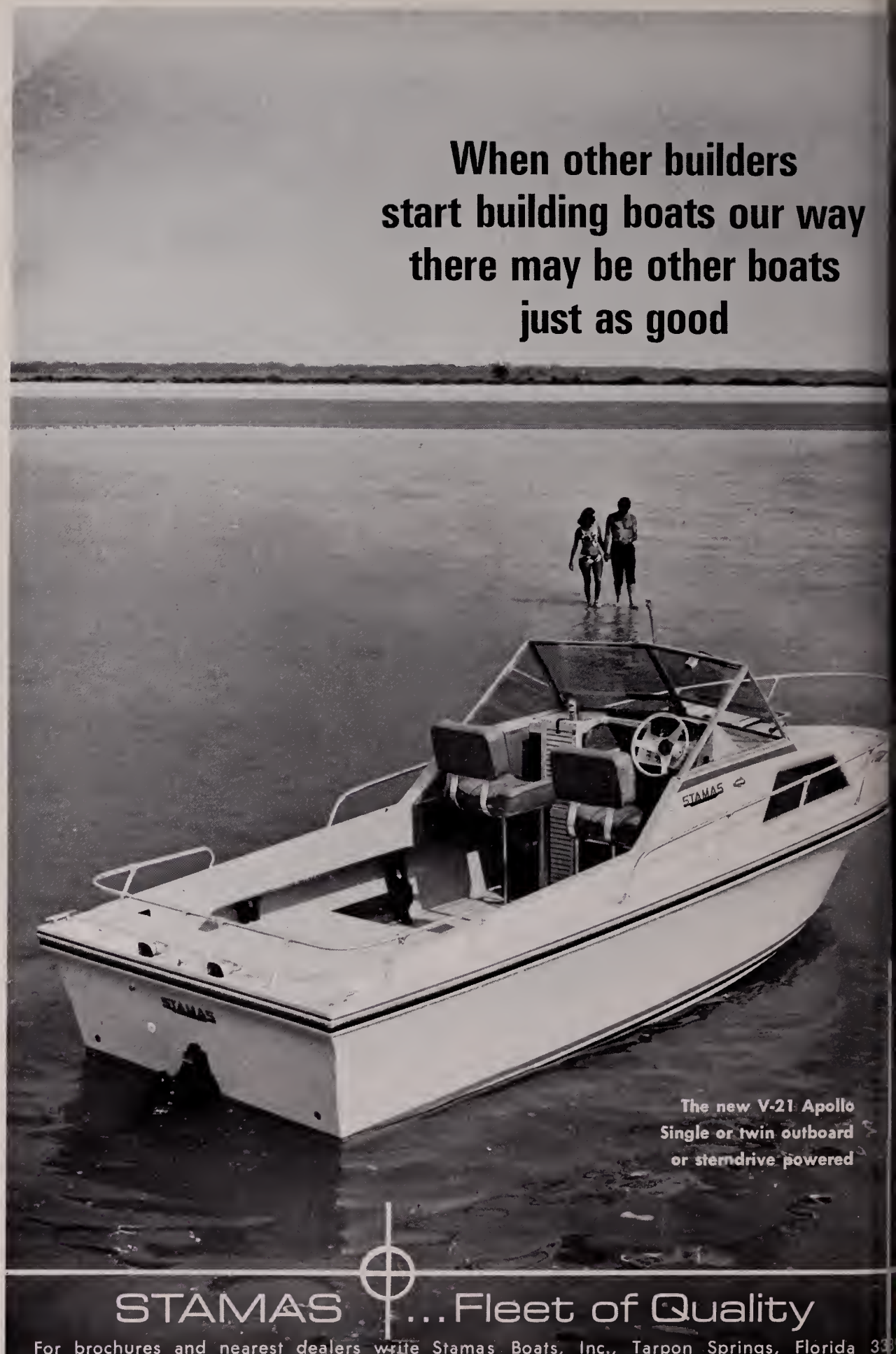
How Supplied: Efudex Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)-aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Efudex Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing-cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).



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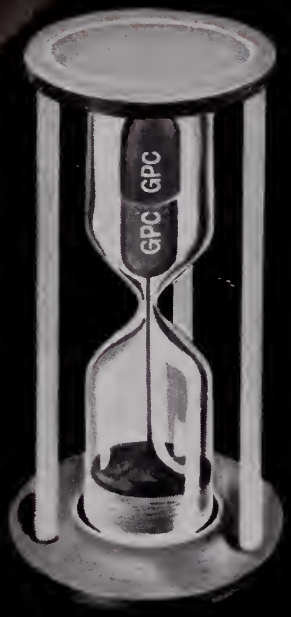
Contraindications: Because of the mild anticholinergic effect of orphenadrine, Norgesic should not be used in patients with glaucoma, pyloric or duodenal obstruction, achalasia, prostatic hypertrophy or obstructions at the bladder neck. Norgesic is also contraindicated in patients with myasthenia gravis and in patients known to be sensitive to aspirin, phenacetin or caffeine.
Since mental confusion, anxiety and tremors have been reported in patients receiving orphenadrine and propoxyphene concurrently, it is recommended that Norgesic not be given in combination with propoxyphene (Darvon®).
Warnings: USE IN PREGNANCY: Since safety of the use of this preparation in pregnancy, during lactation, or in the child-bearing age has not been established, use of the drug in such patients requires that the potential benefits of the drug be weighed against its possible hazard to the mother and child.
USE IN CHILDREN: The safe and effective use of this drug in children has not been established; therefore, the physician must weigh the benefits against the potential hazards.
Precautions: It has been reported that prolonged or excessive use of phenacetin may result in nephrotoxicity. Caution, therefore, should be exercised when Norgesic is administered to patients with renal disorders. It should also be used with caution in patients with tachycardia.
Adverse Reactions: Side effects of Norgesic are those seen with APC or those usually associated with mild anticholinergic agents. These may include tachycardia, palpitation, urinary hesitancy or retention, dry mouth, blurred vision, dilatation of the pupil, increased intraocular tension, weakness, nausea, vomiting, headache, dizziness, constipation, drowsiness, and rarely, urticaria and other dermatoses. Infrequently an elderly patient may experience some degree of confusion. Mild central excitation and occasional hallucinations may be observed. These mild side effects can usually be eliminated by reduction in dosage. One case of aplastic anemia associated with the use of Norgesic has been reported. No causal relationship has been established. **Dosage and Administration:** Adults—1 to 2 tablets 3 to 4 times daily.

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The actions of the official Tincture and Extract of Belladonna result chiefly from their Atropine content . . . conclude Goodman and Gilman

THE PHARMACOLOGICAL BASIS OF THERAPEUTICS
3rd Edition, page 522



ANTROCOL®

Antrocol provides the prompt, predictable antisecretory action of the belladonna alkaloid, atropine, fortified with sedation and blended with Bensulfoid, contributing to even absorption.



Each tablet or capsule contains: Atropine sulfate, 0.324 mg.; Phenobarbital, 16 mg. (may be habit forming); Bensulfoid, 65 mg. (see white section PDR). The atropine content of Antrocol is the maximum amount the average patient can take at six hour intervals over long periods with comfort.

SUPPLIED
Tablet in bottles of 100, 500 and 5000
Capsule in bottles of 100, 500 and 1000

Caution: Federal law prohibits dispensing without prescription.

PRESCRIBING INFORMATION

Contraindicated in glaucoma. Use cautiously in prostatic hypertrophy. Side-effects of toxic dose of atropine: flushing, dryness of mouth, cycloplegia, tachycardia and urinary retention.

DOSAGE: One tablet or capsule after each meal to correct emotional stress and normalize gastric secretions. In treating peptic ulcer, doses at regular intervals up to eight (8) tablets or capsules per day to provide the proper gastric titer for healing. After ulcer has healed, one tablet or capsule after each meal to maintain a titer unfavorable to recurrence.

Clinical supply available to physicians.

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Trocinate relaxes all smooth muscles. Its direct action (musculotropic) does not involve the autonomic nervous system and it is not mydriatic. It is metabolized by the body and eliminated in the urine as harmless degradation products. Trocinate has a remarkable history of freedom from side-effects.

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DIARRHEA (functional) . . . *the first 400 mg. tablet usually relieves the discomfort of diarrhea so promptly that it ceases to be a bother.*

DIVERTICULITIS—MUCOUS COLITIS . . . *the accompanying discomforts can be relieved by this direct smooth muscle relaxant.*

BLADDER SPASM . . . *relaxation is immediate. One or two tablets condition the bladder for cystoscopy in one hour.*

SPASTIC URETER . . . *the specific relaxing effect of Trocinate on the spastic ureter has been proven by animal studies and affirmed clinically. (J. Urol. 73:487-93)*

PRESCRIBING INFORMATION

WARNING: Do not give in advanced kidney or liver disease. PRECAUTIONS: Trocinate relaxes all smooth muscles. Large dosage or prolonged usage may cause feeling of weakness or can theoretically precipitate gall-bladder colic, due to relaxing the vascular and duct systems. Caution should be observed in patients with urinary bladder obstruction. DOSAGE: 400 mg. May be repeated in 4 hours. After relief, lengthen the dose frequency. (see side note)

NOTE: *The high therapeutic index of Trocinate permits its administration in dosage sufficient to relieve smooth muscle spasm promptly. 400 mg. dosage usually creates a therapeutic blood level. In reducing dosage after relief, lengthening the time between dosage rather than lessening the recommended dose is preferable. The prompt direct action allows a convenience of the first suggestion of return of symptom . . . a guide to dose spacing and to determining when treatment is complete. A prescription for twelve or sixteen 400 mg. tablets will usually control pain and leave a few tablets for a reserve.*

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Pneumocystis Carinii Pneumonitis Associated With Idiopathic Immunocyte Depletion Syndrome

Ronald R. Willey, M.D. and David T. Overbey, M.D.

Pneumocystis carinii is an opportunistic protozoan which apparently causes clinical infection only in individuals with lowered defense mechanisms, especially altered immune systems.[1] The first cases were reported in premature and/or debilitated infants two to four months of age.[2] More recently both primary and secondary immunoglobulin deficiencies have been recognized in children as well as adults.[3-5] The secondary types are related to neoplastic diseases of the immune system such as acute leukemia, Hodgkin's disease, lymphosarcoma, reticulum cell sarcoma, multiple myeloma, and chronic lymphatic leukemia or are secondary to immunosuppressive drugs or radiation.[6-9]

This paper presents a case of pneumocystis carinii pneumonitis in an adult without obvious significant underlying disease, discusses diagnostic methods and reviews treatment.

Report of Case

The 57-year-old white man was seen in January 1969 because of fatigue, loss of weight and a cough which produced a small amount of phlegm. The symptoms persisted following what appeared to be a "cold" in October 1968. He reported a transient episode of weakness of the left side almost two years previously whicb had not recurred and while he had smoked heavily, the history revealed no previously known lung diseases.

The patient was six feet tall, of sthenic build, and weighed 194 pounds. The temperature was 97 F, pulse rate 88, respirations 20 and blood pressure 120/60. Examination revealed no cyanosis, abnormalities of skin or evidence of lymphadenopathy. There was some copper wiring of the retinal arteries but they did not appear tortuous. The nasal turbinates were slighty reddened and had a small amount of mucoid discharge. A number of teeth were missing and those remaining showed evidence of pyorrhea and an association with gum retraction. The pharynx was slightly injected. A systolic bruit could be heard over the right carotid artery at the bifurcation. Tbe chest showed some increase in AP diameter and the percussion note was slightly hyperresonant. The lungs were clear. Cardiac examination revealed the apex to be in the 4th intercostal space at the midclavicular line. No murmurs were noted. No abnormalities could be detected in the abdomen, rectal area and in tbe genitalia. Dorsalis pedis and posterior tibial pulsations were absent in tbe extremities and femoral and popliteal pulses were weak bilaterally. Neurologic examination was within normal limits.

A chest x-ray showed heavy bilateral hilar markings, more pronounced on the left side. The complete blood count revealed hemoglobin 14.7 Gm.%, red blood cells 5.5 million and white blood cells 4,000 with 66% segmented neutrophiles, 16% eosinophiles, 1% basophiles and 17% lymphocytes. Vital capacity was 2.7 liters or 59% of predicted vital capacity, 1 second capacity 1.6 liters or 59.6%, and 3 second capacity 2.3 liters or 85% of total capacity. After Isuprel by nebulization, total vital capacity was 2.8 liters or 61% of predicted vital capacity, 1 second capacity 1.2 liters or 42.8%, and 3 second capacity 2.5 liters or 89.3%. Urinalysis revealed 10-15 white blood cells per high power field but otberwise gave negative results.

The clinical diagnosis was obstructive pulmonary emphysema, plaque in the right carotid artery and arteriosclerosis obliterans in both lower extremities. He was placed on Phenergan expectorant, Dimetapp Extentabs 1 tablet BID, Arlidin 1 tablet TID, and Vasodilan 1 tablet TID.

The patient was not seen again until February 18, 1969. The cougb had become more severe, now produced white phlegm and he complained of loss of appetite and strength and stated he had "to push himself to go." Eight days previously he had donated a pint of blood for a

friend. Dyspnea increased upon exertion, cyanosis was noted as well as moist rales and rhonchi in both lungs, more on the left side. The liver had enlarged slightly. He was hospitalized.

Cyanosis continued with the patient at rest. The pulse rate was 104, temperature 97.4 F and blood pressure 100/60. One plus pedal edema was present. A repeat x-ray showed diffuse infiltration of both lung fields, worse in the left lower, in a honeycomb pattern (Figs. 1-3). The chest x-ray suggested a lymphangitic type of carcinomatous spread but x-ray examination of the colon, kidneys, gallbladder and upper gastrointestinal tract showed no abnormalities. Urinalysis revealed a few leukocytes, erythrocytes and bacteria.

A complete blood count showed red blood cells 4.7 million, hemoglobin 13 Gm.%, hematocrit 41%, leukocytes 5,400 with 7% band forms, 74% segmented neutrophiles, 5% eosinophiles, 5% lymphocytes and 9% monocytes. Erythrocyte indices were within normal limits and platelets were estimated to be normal. Blood sugar, BSP, bilirubin, prothrombin time, serology, BUN, and electrolytes were either within normal limits or gave negative results. Oxygen saturation was 84% with PO_2 44 mm. Hg. Histoplasmin and PPD #2 skin tests also proved negative. Sputum was negative for acid-fast, fungus and malignant cells. Serum electrophoresis showed albumin 2.4 Gm./100 ml. (44%), alpha 1 globulin 0.6 Gm./100 ml. (10%), alpha 2 globulin 0.8 Gm./100 ml. (15%), beta globulin 0.9 Gm./100 ml. (16%) and gamma globulin 0.8 Gm./100 ml. (15%). No "M" component was identified on the tracing and the gamma globulin formed a low diffuse curve.

The patient did poorly in spite of IPPB treatments, oxygen and supportive care. Since a Hamman-Rich type syndrome or some other alveolar capillary block was suspected, a lung biopsy was performed on March 5 using local anesthesia and the tip of the lingula removed. Special stains on this tissue showed what appeared to be organisms consistent with Histoplasma capsulatum. He was placed on actinomycin D and steroids. His condition continued to deteriorate and he died two days later.

Autopsy showed some increase in AP diameter of the chest, but no lymph nodes were palpable. Each pleural cavity contained fluid estimated at 50 to 100 cc. The lungs were large, solidified, nearly airless, dark gray with abundant carbon deposition; the right one weighed 2,000 Gm., the left 1,700 Gm. Sections showed granularity of the surface interspersed with small cysts measuring up to 2-3 mm. in diameter. Sectioned surfaces were wet with large amounts of fluids being exuded with pressure. One lung contained a granuloma 1.5 cm. in diameter (Fig. 4).

The pulmonary arteries were dilated and showed mild atherosclerosis but no emboli. A layer of red-brown mucus covered the bronchi. Several hilar lymph nodes measured 1.5 cm. to 2 cm. in diameter and contained a large amount of anthracotic pigment. Thrombi completely occluded the left iliac artery. The alimentary tract



Fig. 1. — Chest film, two years before illness (1966).

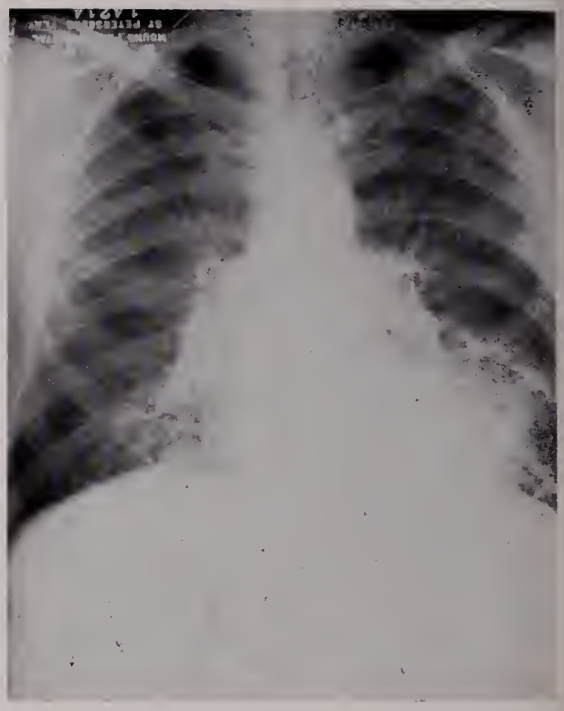


Fig. 2. — Chest film, at time of terminal admission in February 1969.

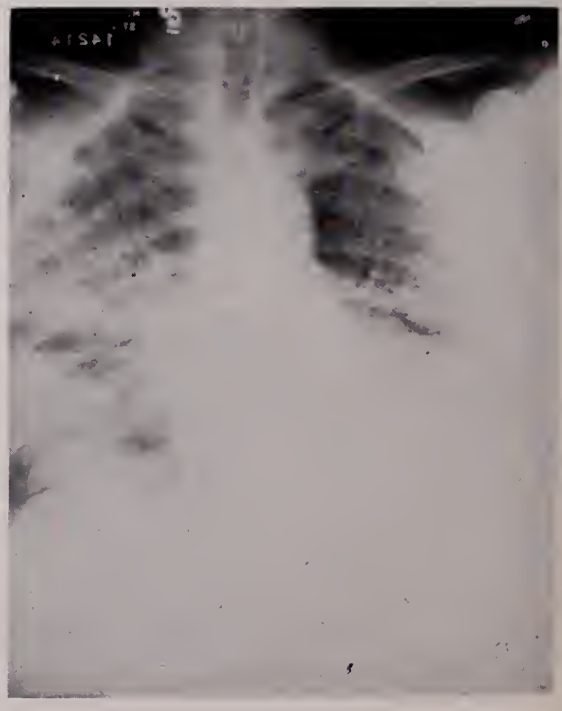


Fig. 3. — Chest film, two days before death, March 1969.

showed thrombosed veins in the esophagus but no other abnormalities. The liver weighed 2,350 Gm. and presented a smooth glistening surface. Sectioning showed a nutmeg-type congestion. The spleen weighed 610 Gm. and contained an infarct 4 cm. in diameter. The remaining organs were grossly unremarkable.

Microscopic sections of the lungs showed the typical picture of pneumonia due to pneumocystis carinii with the exception of very few lymphocytes and plasma cells within the alveolar walls. The granuloma had a central core of necrotic tissue with organisms at the periphery. On hematoxylin-eosin stain, a foamy eosinophilic material filled the alveoli (Fig. 5). With Grocott silver methenamine stain, cystic organisms were identified as pneumocystis carinii (Figs. 6-7). The number of lymphocytes and plasma cells were severely decreased in sections from lymph nodes, spleen and bone marrow. The peripheral smear showed an absolute lymphopenia (270 lymphocytes/cubic millimeter).

Discussion

In almost all reported cases of pneumocystis carinii pneumonia, the diagnosis was made postmortem. Probably the most important clinical aid in arriving at a diagnosis antemortem is a high index of suspicion especially in the patient with a dry cough, lethargy, anorexia and chest findings suggesting either Hamman-Rich syndrome or alveolar proteinosis. Alveolar capillary block frequently is noted and also a few rales or rhonchi and labored respirations. X-rays usually show a diffuse infiltrative process more prominent at the hilar areas with spreading to the peripheries. The index of suspicion should be heightened in patients who have received immunosuppressive drugs and those in which there is evidence of suppression of immunoglobulins. Rarely have the organisms been found in hypopharyngeal secretion and bronchial washings.

Needle biopsy specimens of lung tissue have given an accurate diagnosis but fatalities have been reported.[10] Open lung biopsy provides the best opportunity for diagnosis.[6] Routine hematoxylin and eosin stained sections usually show intra-alveolar foamy eosinophilic material. Organizing pneumonia and giant cells may be present. The alveolar septa contain mononuclear cells: histiocytes, plasma cells and lymphocytes (Fig. 8). A Grocott silver methenamine stain should be done on all material in addition to hematoxylin and eosin stains. Giemsa stain is excellent for imprint smears. Oval, wrinkled and crescent-shaped cystic organisms are seen which measure from 4-8 micra, smaller than red cells in the same field. Some cystis are uninuclear while others contain up to eight nuclei. The organisms must be differentiated from Histoplasma capsulatum.[11]

Once the diagnosis is made, the drug of choice appears to be pentamidine isethionate at a dose 4 mg./Kg./day.[5-7]



Fig. 4.—Lung with granuloma caused by pneumocystis carinii.

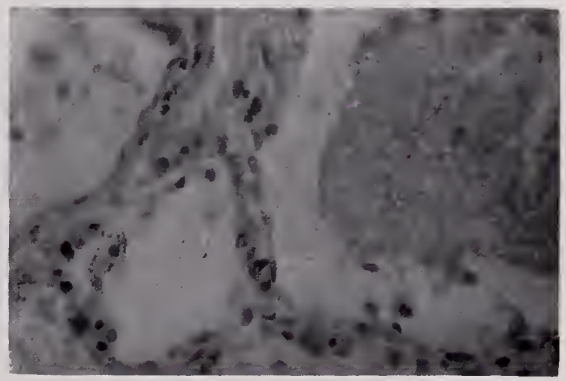


Fig. 5.—Lung section showing an alveolus containing foam-like material. Note the small number of inflammatory cells in the alveolar septa. Hematoxylin-eosin stain.

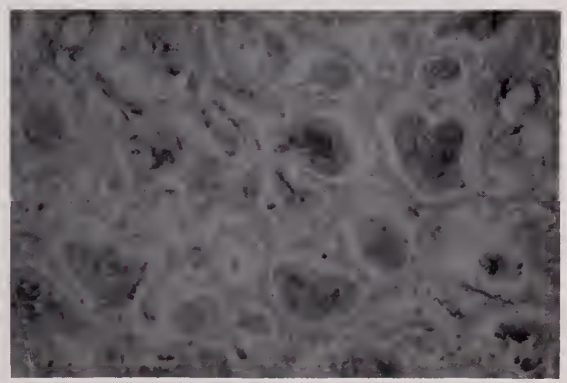


Fig. 6.—Lung section showing large number of organisms within the intra-alveolar material. Grocott stain.

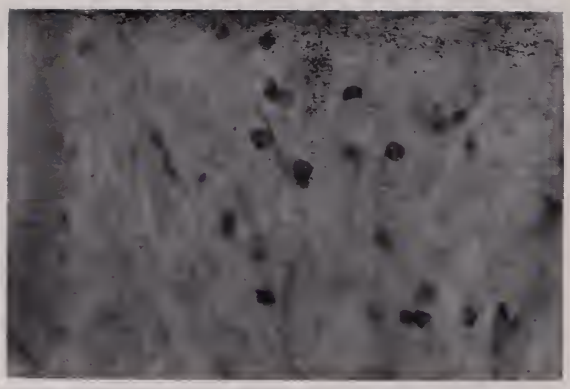


Fig. 7.—High power view of pneumocystis carinii. Note terminal "plugs." Grocott stain.

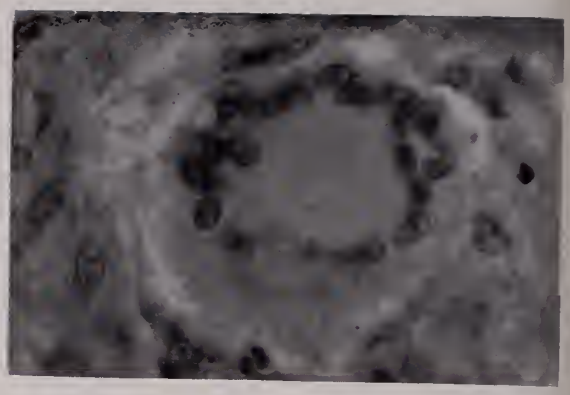


Fig. 8. — Giant cells containing organisms which are faintly stained with eosin.

This patient appeared to have a deficiency in his immunologic system, demonstrated by a severe reduction of lymphocytes and plasma cells associated with some decrease in gamma globulin. Etiology of this reduction in cells is unknown. The presence of pneumocystis carinii organisms in a granuloma of the lung suggests the possibility that he had a chronic infection at some time in the past with formation of a granuloma. This illness was not clinically manifest to any extent when he was seen in January; however, evidence was present of lymphocyte depletion in the peripheral blood. The stress of donating a unit of blood apparently lowered his resistance enough to allow widespread dissemination of the pneumocystis carinii infection to both lungs. When the organisms and exudate were sufficient to obstruct the alveoli, anoxia occurred causing death.

Summary

A case in an adult is presented of pneumocystis carinii pneumonitis associated with idiopathic immunocyte depletion syndrome. Clinical indications of the infection are discussed and methods of diagnosis reviewed. A high index of suspicion on the part of the examiner is recommended as the most important clinical aid in arriving at the diagnosis.

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Medicine is my lawful wife and literature is my mistress. When I get fed up with one, I spend the night with the other. Though it's irregular, it is less boring this way, and besides neither of them loses anything through my infidelity.

Anton Chekhov, M.D.

Vesicovaginal Fistula After Radiation Therapy

James W. Daly, M.D.

Radiation for carcinoma of the cervix is a widely accepted therapeutic modality in the United States. This form of treatment is associated with a small but definite morbidity, and the complications arising from radiation therapy may be far removed in time from the initial therapy. At no time is there an absence of radiation-induced changes in irradiated tissue; that is, there is never complete healing. Furthermore, the addition of further stress or trauma—be it local or systemic—may precipitate significant acceleration of the basic process of chronic radiation injury (obliteration of the fine vasculature). This combination of events may lead to significant complications.

The purpose of this report is to present two patients who developed spontaneous vesicovaginal fistulae ten years after radiotherapy for carcinoma of the cervix. Both of these individuals had certain features in common which may shed some light on an aspect of radiation damage that is not generally appreciated and not well understood.

Case 1. — A 44-year-old, para 7027, white woman was first seen in the tumor clinic in November, 1968. She was referred because of total urinary incontinence of approximately four weeks' duration. At the age of 34 years she had been treated for Stage I squamous carcinoma of the cervix. The therapy consisted of transvaginal and external x-ray irradiation via a 250 kv. machine. The exact details of treatment were not available initially; however, it was ascertained later that 5,000 rads transvaginally in ten application and 3,000 rads to the parametrial area through six ports had been employed. Further history revealed that two weeks prior to the incontinence a fracture of her right lower leg was sustained in a fall. Further, for the past several years she had incurred several significant family problems, including a divorce, and stated that she had been depressed. Her appetite had been poor and in a period of ten years she had lost 22 pounds.

Examination revealed a thin, (98 lbs.) poorly nourished female wearing a cast on her right leg. General physical examination was otherwise normal. Pelvic examination revealed a 3x4 centimeter opening in the anterior upper one third of the vagina. The bladder mucosa was clearly visible through the fistula. The edges were necrotic and there was induration and thickening of the floor of the bladder with a moderate induration extending to the paracolpal areas bilaterally. The uterus was small and in midposition; the cervix was flush with the vaginal vault. A barium enema, sigmoidoscopy and IVP were normal. Cystoscopy revealed the fistula to be in the midline of the bladder with the anterior margin one centimeter behind the interureteric ridge. There was edema around the edge of the fistula. Biopsies were obtained of the cervix and the edges of the fistula. Pathologic analysis revealed no tumor.

Initial treatment consisted of a well-balanced diet, 500 mg. of ascorbic acid and multivitamins (twice a day) and conjugated estrogens 1.25 mg. daily. She was instructed to use estrogen cream in the vagina each night.

By March, 1969 the patient's weight had increased to 105 pounds. The leg fracture had completely healed. The edges of the fistula were now healed, and there was much less induration in the anterior vagina and bladder floor. The urine was sterile on culture. The patient was admitted to the hospital in March, 1969, and the vesicovaginal fistula was repaired by a combination abdominal-vaginal approach. Recovery was uneventful, and she has remained dry.

Case 2. — A 50-year-old nulliparous white woman was first admitted to the hospital in February 1969 because of an acute alcoholic episode. Once coherent, she gave a history of urinary incontinence for approximately one month. In 1958, she had been treated for Stage I epidermoid carcinoma of the cervix. Therapy consisted of radium to the cervix and vagina plus external irradiation. No further details are available. One year later she developed a rectovaginal fistula and had a diverting colostomy. Further history revealed chronic alcoholism which predated the diagnosis of cervical cancer. On admission to this institution the patient's weight was 95 pounds; usual weight was stated to be 120.

Examination revealed a thin, poorly nourished individual. There was a colostomy stoma in the left midabdomen. The vulva was excoriated. The vaginal mucous membrane was ulcerated and there was a 6x5 centimeter fistula in the bladder base, as well as a large chronic rectovaginal opening. IVP was normal. X-rays of the chest and spine revealed severe osteoporosis. Examination under anesthesia revealed marked pelvic fibrosis. Biopsies of the vagina and the edges of the fistula were negative for tumor. The cervix could not be identified. Cystoscopy revealed edema and ulceration around the edge of the bladder fistula. The anterior margin of the fistula was immediately behind the interureteric ridge. Treatment consisted of a well-balanced diet, ascorbic acid, multivitamins and estrogen. She was kept in the hospital primarily for dietetic therapy. The vagina was irrigated daily with peroxide and saline, and the necrotic material was debrided. Sulfa cream was instilled into the vaginal canal daily. Over a period of a month the patient's general condition improved. She gained ten pounds. The vaginal ulcer healed despite the constant loss of urine through the vagina. In March, 1969 an ileal-conduit was constructed. The patient made an uneventful recovery and has remained well.

Vesicovaginal fistulae associated with radiation for cervical cancer are not common. The incidence in major centers is usually reported as less than 2.0%.[1-3] Our own experience is 2.6%.

The basic cause of severe bladder injury is an excessive dose to the base of the bladder by the central source of radiation. In most subjects this is radium, but transvaginal x-rays (as in one of our patients) may be implicated. Peckham[3] in a recent review of material at the University of Wisconsin indicated that when the emphasis of a therapeutic regime is based upon a central source of radiation (radium), the incidence of bladder and rectal injuries rises.

Bladder hemorrhage, ulceration, and fistula formation are seen most commonly 1-3 years

after treatment;[1] we share this experience. Graham[4] reports, however, a vesicovaginal fistula which occurred 19 years after therapy, and Sorenson[5] tells of a case of intraperitoneal vesical rupture 25 years after radiotherapy. Kottmeier[2] mentions a patient with severe radiation damage to the bladder 28 years following primary therapy; he states that 18% of the radiation-induced bladder injuries in his experience occurred five years or more after treatment.

According to Rubin and Casarett[6] the histopathologic sequence of events after a brief radiation exposure is divided into several phases. Initially, there is acute damage to sensitive parenchymal cells which is followed by a process of recovery. The extent of recovery after the acute episode depends upon the dose absorbed and the relative radiosensitivity of the tissue. The stroma is also damaged, but evidence of injury appears later, for excess scar formation and degeneration of the fine vasculature with arteriolar and capillary fibrosis occurs. If the dose of radiation is moderate, the acute and subacute phases are followed by an intermediate period of little or no tissue change except that associated with aging. Delayed or late parenchymal and stromal degeneration may occur with continued obliteration of the stromal vasculature. At this point the patient may present with an ulcerated or contracted bladder or a bladder fistula.

The two fistula we report occurred long after the initial treatment. Both women are presumably cured of their cancer. In both the outstanding feature was trauma and malnutrition, later followed by fistula formation, i.e., the trauma of chronic and acute ethanol "poisoning" coupled with malnutrition in the one patient and a fractured leg coupled with chronic anxiety, depression and malnutrition in the other. The importance of trauma is stressed by Fletcher[7] who states, for example, that alcoholism in the patient with cancer of the head and neck is a contraindication to radiotherapy because of poor healing and increased incidence of complications. Thus, it can be assumed that the local effect of stress plus poor nutrition magnified and accelerated the changes brought about by radiation in our patients, thereby resulting in local necrosis and fistula formation.

The point to be made is that in the care of patients who are treated with radiation for genital malignancy, it is important to consider the individual's well being as well as her cancer. General nutrition is important and should be stressed. Weight loss often indicates recurrent cancer. Once recurrence has been excluded, the cause for the weight loss should be ascertained and corrected.

In addition, bladder symptoms should be ascertained and investigated with cystoscopy. The liberal use of cystoscopy often leads to the diagnosis of unsuspected pathology in the bladder. (ulcers, stones, contracture) Our practice is to avoid biopsy in radiation-induced bladder ulcers initially; we treat the patient with a well-balanced diet, ascorbic acid, a multivitamin preparation, estrogen, and an appropriate agent to render the urine sterile. The patients are seen frequently and hospitalized if necessary. Using this regime we have treated 15 patients for radiation-induced bladder ulceration and have noted only one fistula to develop. The patient became asymptomatic, and failed to return for further therapy, and became totally incontinent of urine.

When vaginal vault necrosis and ulceration are seen postradiotherapy, it ought to serve as a warning that there is an increased chance of development of a vesicovaginal fistula. We consider vault necrosis to be a very serious complication and hospitalize the patient for biopsies and examination under anesthesia, curettage of the slough, nutritional support, and intense local therapy. The local treatment consists of diluted peroxide douches twice daily, instillation of sulfa cream after each douche, rest and systemic estrogen. Once the ulcer is controlled the patient is followed in the clinic frequently, and nutrition including vitamin supplements is stressed.

Finally, when one radiation complication develops it is not uncommon to have others, a finding noted in case 2. This patient developed a rectovaginal fistula several years prior to the appearance of bladder damage. This observation is also noted by Burns et al.[1] Accordingly, a period of watchful surveillance is worthwhile after a radiation injury and prior to any definitive local restorative surgery.

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Otorhinologic Aspects of Leprosy

Robert E. Pickard, M.D. and J. A. Burnam, M.D.

In recent years increased immigration to the United States from countries which are endemic reservoirs of leprosy has increased the likelihood of cases of leprosy presenting to ENT clinics. This appears to be particularly true in south Florida with the influx of Cuban refugees. In the past five years 16 patients with leprosy, 14 from Cuba, have presented themselves to the ENT clinic at Jackson Memorial Hospital, University of Miami School of Medicine. These patients were referred from the Dermatology Service for confirmation of the diagnosis and to determine the state of activity of the disease.

The purpose of this paper is to make otorhinolaryngologists and other physicians in Florida mindful of the diagnosis of leprosy, especially in emigres from Cuba or other parts of the world in which leprosy is endemic. Early confirmation of the diagnosis and, therefore, early treatment may save the patient much later disability.

Since 1966, at the University of Miami School of Medicine Department of Otorhinolaryngology, we have had occasion to see 16 leprous patients on the Dermatology Service (see table). All were from Cuba except one from Colombia and one from Louisiana. Two of the Cubans were of oriental heritage. Eight patients had active leprosy, one tuberculoid and seven lepromatous. Eight patients had inactive leprosy as judged by skin and nasal mucous membrane samples negative for Mycobacterium leprae. All patients with skin samples positive for M. leprae also had nasal mucous membrane smears positive for M. leprae.

All patients with skin scrapings positive for M. leprae were judged to have active lepromatous leprosy, although positive nasal samples were used as confirmatory evidence of active disease. Except for the one case of tuberculoid leprosy all patients with nasal smears and skin scrapings negative for M. leprae were judged to have inactive lepromatous leprosy.

Of particular interest was the fact that the findings on physical examination of the ears, nose and throat did not correlate with result of the nasal and skin bacteriologic samples nor with state of activity of the leprosy. Of two patients with saddle nose deformity, one had nasal and skin samples positive for M. leprae; one had skin and nasal samples negative for M. leprae. Two patients with atrophic rhinitis had nasal and skin smears negative for M. leprae; two others had nasal and skin smears positive for M. leprae. Examination of the ears, nose, and throat of four patients with nasal and skin samples positive for M. leprae was completely within normal limits.

All patients with active leprosy were transferred to the Leprosarium in Carville, Louisiana. Those patients with inactive leprosy were discharged from the hospital and followed in the public health outpatient clinic.

Discussion

There are basically two varieties of leprosy, tuberculoid and lepromatous.

The tuberculoid type is the localized form of the disease and usually involves circumscribed areas of skin or peripheral nerves. The lepromatous variety is the generalized form of the disease affecting the peripheral nerves, reticuloendothelial system, a large portion of the body including the testes, the skin especially of the extremities and external ear lobes, mucous membrane of the respiratory tract, and the anterior portion of the eye.

The nasal mucous membrane and acral parts of the body are peculiarly prone to harbor M. leprae. The fact that these areas are cooler than normal body temperature (the temperature of the nasal mucous membrane is 30.4 C to 32 C) may explain why they seem to be ideal tissues in which M. leprae can multiply.[1]

The scraping and/or biopsy of the nasal mucous membrane for bacteriologic study in leprosy has been popular since Arning in 1886 discovered acid-fast bacilli in the nasal passages of leprosy patients.[2,3] Goldschmidt in 1891 and Robert Koch in 1897 also noted acid-fast bacilli in nasal secretions of leprosy patients.[4]

Some authors believe that the nose is involved early in leprosy, especially the lepromatous variety.[1,5] These authors believe the nose to be the portal of entry into the body of M. leprae and that contamination of fingers with nasal secretions full of M. leprae is important in transmission of the disease.[1,5]

Results of Survey

1966-1970

NATIONALITY	SKIN BX (ear lobe)	NERVE BX	NASAL BX	ENT EXAM	DX	OUTCOME
1. Cuba (Chinese)	(—)	(+)	(—)	(—)	tuberculoid leprosy	Carville, La.
2. Cuba	(+)	Not done	(+)	atrophic rhinitis	lepromatous leprosy (active)	Carville, La.
3. Cuba	(—)	Not done	(—)	(—)	inactive leprosy	Discharged
4. Cuba (Chinese)	(—)	Not done	(—)	(—)	inactive leprosy	Discharged
5. Cuba	(—)	Not done	(—)	(—)	inactive leprosy	Discharged
6. Cuba	(—)	Not done	(—)	(—)	inactive leprosy	Discharged
7. Cuba	(+)	Not done	(+)	(—)	lepromatous leprosy (active)	Carville, La.
8. Cuba	(+)	Not done	(+)	(—)	lepromatous leprosy (active)	Carville, La.
9. Cuba	(—)	Not done	(—)	saddle nose deformity, atrophic rhinitis	inactive leprosy	Discharged
10. Colombian	(—)	Not done	(—)	(—)	inactive leprosy	Discharged
11. U.S.A.	(—)	Not done	(—)	atrophic rhinitis	inactive leprosy	Died of renal failure, unassociated with leprosy
12. Cuba	(—)	Not done	(—)	(—)	inactive leprosy	Discharged
13. Cuba	(+)	Not done	(+)	(—)	lepromatous leprosy (active)	Carville, La.
14. Cuba	(+)	Not done	(+)	saddle nose deformity, nasal septal perforation	lepromatous leprosy (active)	Carville, La.
15. Cuba	(+)	Not done	(+)	(—)	lepromatous leprosy (active)	Carville, La.
16. Cuba	(+)	Not done	(+)	atrophic rhinitis	lepromatous leprosy (active)	Carville, La.

The exact place of nasal smears in the diagnosis of leprosy has enjoyed a storm of controversy over the years and is of particular interest to the otorhinologist. The consensus of opinion is that M. leprae can be found in the skin whenever they are found in the nasal mucous membrane and in many patients when M. leprae are found in the skin, they cannot be found in the nose. The finding of acid-fast bacilli in the nose alone is of doubtful significance insofar as the diagnosis of leprosy is concerned.[2,3]

In none of Browne's 100 patients with leprosy was the nasal mucous membrane sample positive for M. leprae alone, i.e., all patients with nasal smears positive for M. leprae had skin smears positive for leprosy bacilli.[5]

All six of our patients with nasal smears positive for M. leprae had skin scrapings which were also positive for M. leprae. The clinical evaluation of the ears, nose, and throat could not be correlated with the presence or absence of M. leprae in the nasal samples. In none of our patients with nasal smears positive for M. leprae was the nose the only site at which M. leprae were found. While the skin sample was diagnostic of leprosy and its activity, the nasal scraping confirmed the diagnosis and the state of activity of the disease.

Most authorities recommend the sampling of the nasal mucous membrane as well as the skin for bacteriological confirmation of the diagnosis and the state of activity of leprosy, and the assessment of response to chemotherapy.[2,6]

It was on the basis of activity of the disease, assessed primarily with skin and nasal mucous membrane biopsy and/or other samplings, which determined the follow-up care of our 16 patients. Since leprosy is a contagious disease all eight of our patients with active leprosy were transferred to the Leprosarium at Carville. Here persons with active leprosy are segregated from the rest of society until their disease is judged inactive. Those eight patients with inactive leprosy have been followed in the public health outpatient clinic.

Treatment

The sulfones have been employed in the treatment of leprosy since Faget's historic trial of Promin in 1941 at Carville, and the first use of dapsone by Cochrane in 1946.[7] Generally dapsone is administered orally in doses of 300-600 mg. per week. The duration of treatment and segregation of active cases is continued at least until the skin and nasal mucosa are devoid of M. leprae. Maintenance therapy for prevention of relapse is still an unsettled question. Side effects and reactions to the sulfones include headache, anorexia, nausea, dizziness, insomnia, tachycardia, anemia, toxic psychosis, agranulocytosis, hematuria and erythema nodosum.

Summary

Leprosy is a disease which is endemic in some parts of the world from which emigres are taking refuge in the United States. For this reason, patients with leprosy are being seen more frequently at the ENT Outpatient Clinic, University of Miami School of Medicine in consultation from the Dermatology Service.

The clinical examination of the ears, nose and throat of these patients with leprosy could not be correlated with the results of bacteriologic examination of specimens from the nasal mucous membrane. Mycobacterium leprae was found in all patients with skin samples positive for M. leprae. The nasal samples helped determine the diagnosis of leprosy, state of activity of the disease, and follow-up care of each patient.

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(Editorial Comment, next page)

Dr. Pickard presents a well-written, concise discussion which should be of interest to the general practitioner, dermatologist and otolaryngologist. This is a gentle reminder that leprosy is still a disease to contend with and it must not become "out of sight, out of mind."

Only one of Dr. Pickard's 16 patients is a native of the United States indicating that as a nation we are relatively free of contagion. It must be remembered, however, that nations and people no longer are confined by seas and lands and that the areas of the world through which people do not pass freely have become fewer and fewer. Thus diseases endemic in other countries are important. Boundaries of medical practice extend beyond the usual community, and we must be alert to signs and symptoms of disease entities whose descriptions have almost disappeared from the standard texts.

It is appropriate that this presentation on leprosy has been prepared by a young physician. At the time it was written Dr. Pickard was a resident in otolaryngology at Jackson Memorial Hospital in Miami. The thoroughness of his investigation, coupled with the ability to express his thoughts clearly yet concisely, increases the interest and the value of his contribution. The paper should remind all of us to seek out and encourage other young physicians-in-training to lift up their eyes to the responsibility which they have. It is to share their knowledge at the appropriate meeting of colleagues and to record their experiences in the literature so that the entire profession may be better prepared to serve those who need its help.

Dr. Irwin, 2064 Park Street, Jacksonville 32204.

The term "schizophrenia" in medical circles carries almost as much of a ring of authenticity as "diabetic" or "tubercular." Yet, it is actually nearly as much a fiction as that lovely legal appellation a "reasonable man."

Don D. Jackson

Comparison of Two Antimicrobial-Corticoid Preparations in the Management of Acute Otitis Externa

Albert J. Davis, M.D.

The clinical evaluation of topical agents' efficacies in otitis externa is difficult because the majority of patients respond to careful cleansing and drying. The residuum of "difficult" infections, in which benefit from antibacterial agents is readily apparent, is so small as not to be amenable to valid statistical treatment.

In the present report a study is described in which an effort was made to compare two widely used otic preparations. The findings support the thesis that a difference is not demonstrable, even in a series of 100 cases.

Methods

The study group consisted of 100 patients with otitis externa, nearly equal in sex distribution in the overall group and in the two comparison groups. On admission to the study patients were assigned alternately to the two treatment groups and history, suspected etiology, symptoms, and physical findings were recorded. Cultures were taken from the external auditory canal, but treatment was instituted before culture results were available.

After thorough cleansing and drying of the external canal a wick was inserted moistened with either Furacin®-HC Otic solution* or Cortisporin® Otic Drops.** One to two weeks later and (in two cases) again after a further period of two or three weeks, cultures from the ear were repeated unless the condition had cleared completely, clinical progress recorded, and cleansing and antimicrobial treatment carried out as indicated.

Organisms were identified by colony morphology and Gram staining, and tested*** for susceptibility to nitrofurazone and to polymyxin B.

* Furacin (nitrofurazone) 0.2% and hydrocortisone acetate 1.0% in a glycerin and polyethylene glycol base. Eaton Laboratories, Division of The Norwich Pharmacal Company.

** Per ml: Polmyxin B sulfate 10 000 units, neomycin sulfate equivalent to neomycin 3.5 mg., and hydrocortisone 10 mg., in an aqueous base containing cetyl alcohol, propylene glycol and polysorbate 80. Burroughs Wellcome & Co.

*** Sensi-Discs,® Baltimore Biological Laboratories, a 100 μg disc was used for nitrofurazone and a 30 μg disc for polymyxin B.

Clinical progress was rated as cured, improved, or failure on the basis of changes in symptoms (pain, itching, hearing deficit) and signs (erythema, swelling, discharge, vesiculation) and of the results of bacteriologic cultures.

In each group the etiology of the condition was ascribed to swimming in 27 cases, to trauma (usually scratching) in 15 to 20 instances, and to unknown causes in the remainder of the patients. Typically, increasing itching and pain in the ear had caused the patient to seek treatment after periods ranging from three to 28 (median 7 to 10) days. Both ears were affected in 49 patients, the right ear only in 22 and the left ear only in the remaining 29. Hearing loss was reported by 99 of the 100 patients.

Physical findings were classic for otitis externa. Vesiculation was present in two patients in each group, and no foreign body was found in any patient's ear.

Organisms identified at the pretreatment culture are shown in Table 1.

Table 1.—Results of Initial Microbial Identification.

Organism	Numbers of Times Found Furacin Patients	Cortisporin Patients	Total
Pseudomonas	14	15	29
Proteus	15	13	28
E. coli	9	8	17
Staph. albus	6	9	15
Staph. aureus, coag. +	0	2	2
Aspergillus	7	3	10
Streptococcus	1	5	6
Candida albicans	1	0	1

In nearly all cases only a single organism was isolated; two were cultured initially from each of three Furacin and five Cortisporin patients.

Microbial isolates sensitive to one or both of the antimicrobials were 66 in number (Table 2). In nearly all cases (Table 2) the microbial isolate was sensitive to one or another of the drugs, not to both.

Table 2.—Results of Microbial Susceptibility Testing (Initial Cultures).

Organism	Numbers of Microbial Isolates Sensitive to Nitrofurazone Fully	Nitrofurazone Slightly	Polymyxin B Fully	Polymyxin B Slightly	Total
Pseudomonas	5	1	12	0	18
Proteus	7	2	5	1	15
Staph. albus	7	1	3	1	12
Staph. aureus	2	0	0	0	2
"Staph."	2	0	0	0	2
E. coli	3	2	3	2	10
Strep. viridans	1	0	0	0	1
"Strep."	1	0	1	1	3
Aspergillus	2	0	0	1	3
Candida albicans	0	0	0	0	0
Total	30	6	24	6	66
% of overall total	45	9	36	9	100

Table 3.—Results of Microbial Susceptibility Testing (All Isolates).

Organism	Total No. Isolates	Fully Sensitive to Nitrofurazone No.	%	Fully Sensitive to Polymyxin B No.	%
Proteus	33	7	21	5	15
Pseudomonas	29	5	17	29	41
E. coli	20	3	15	3	15
Staph. albus	14	7	50	3	22
Staph. aureus	2	2	100	0	0
"Staph."	6	2	33	0	0
Aspergillus	10	2	20	0	0
Candida albicans	1	0	0	0	0
Strep. viridans	1	1	100	0	0
"Strep."	6	1	17	1	17
Total	122	30	25	24	20

Totaling second (and two third) cultures as well as those taken at the start of therapy, 122 isolates of organisms were obtained. As shown in Table 3, only 54 (44%) of these were fully susceptible to nitrofurazone or polymyxin B or both, with another 12 (10%) showing slight sensitivity. If findings of slight in vitro susceptibility are disregarded as being of little clinical significance, the overall results of testing of microbial organisms for susceptibility to the two antimicrobial agents may be summarized as shown in Table 3.

Most microbiologic cultures were negative ("no growth" reported) at the second visit, after seven to ten days of therapy, and of the few positive cultures (eight for Furacin, six for Cortisporin) several were reports of "normal flora." Only one of the third cultures (in a Furacin patient) was positive, and this was reported as Staphylococcus albus, a normal resident of the external ear.

Because of hypersensitivity to Cortisporin Otic Drops, two patients were changed to Synalar®* Solution 0.01% and another patient to Kenalog® Lotion.** A fourth patient originally designed for inclusion in the Cortisporin group was treated with Lidosporin® Otic Solution*** in order to obtain local anesthetic action. One patient who failed to improve after one week of Cortisporin therapy was changed to Furacin with marked improvement.

One patient of the Furacin group showed signs of hypersensitivity to the preparation (after the otic condition was recorded as cured) and was changed to Kenalog Lotion with marked improvement. Another Furacin patient was changed to Cortisporin on the tenth day, although the culture result had become negative, because the Pseudomonas organism originally cultured from the ear was sensitive to polymyxin B and a greenish exudate was still visible in the ear (an exudate had been present initially).

All final evaluation classifications in both groups were "cure" except for five of the Cortisporin patients, four of whom were classified "im-

* Fluocinolone acetonide. Syntex Laboratories, Inc.
** Triamcinolone acetonide 0.1%. E. R. Squibb & Sons.
*** Per ml: Polymyxin B sulfate 10,000 units and lidocaine hydrochloride 50 mg. in water, and propylene glycol. Burroughs Wellcome & Co.

proved" and one was lost to follow-up. Of the four "improved" patients, one still showed a large E. coli population after 14 days of treatment; the others showed no growth on culture.

The patients whose condition was treated with agents other than those originally intended also were classified as "cured" at final evaluation. Of the total of six such patients, two were treated with other antimicrobial agents (Lidosporin or Furacin); the other four were treated with corticoid preparations (fluocinolone acetonide or triamcinolone acetonide) and thus may be said to constitute a small control group.

It seems clear that the attempt in this study failed to find a difference in clinical usefulness between the two antimicrobial-corticoid preparations. Both were equally effective and safe, within the limitations of the study design and methods. Although there was no "cleansing only" control group, the data indicate that thorough cleansing and drying of the external canal might have been effective—especially since the onset of the condition so often was associated with excessive moisture (swimming or profuse and prolonged perspiration).

It is my clinical impression, however, that use of the two antimicrobial-anti-inflammatory agents brought about subjective relief in objective cure in a shorter time than would have elapsed under physical measures alone.

It may be noted that the use of Furacin, a preparation containing only one antimicrobial agent (nitrofurazone), was attended with results at least as excellent as when Cortisporin, containing two such agents (polymyxin B and neomycin sulfate) was used.

The use of nitrofurazone preparations is not indicated in Aspergillus or Candida infections, and it was intended at the outset to study only bacterial otitis externa. Treatment was started, however, before the microorganism was identified, and clinical cure was apparent before there was time to eliminate the patient from the study.

Conclusions

Equal numbers of a study group of 100 patients with otitis externa were treated with Furacin-HC Otic and with Cortisporin Otic Drops, in addition to thorough cleansing and drying of the external ear. Bacteriologic and clinical examinations showed that the two preparations could not be distinguished from each other by efficacy and safety criteria. In vivo susceptibility of microbial isolates to nitrofurazone and polymyxin B sulfate, the principal antimicrobial agents concerned, was not related to either bacteriologic or clinical outcome. In my opinion either preparation is suitable for use in uncomplicated otitis externa, when it is desirable to reduce the duration of symptoms, although cleansing and drying procedures probably would result in cure eventually in the great majority of cases.

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EDITORIAL COMMENT

G. Dekle Taylor, M.D.

It is of interest to note the similar results in the treatment of external otitis with Furacin-HC Otic and Cortisporin eardrops. I agree with the author that cleansing and drying procedures would probably result in a cure in the majority of cases. It would be of further interest to determine whether the addition of the corticosteriods in both medications add appreciably to their therapeutic value. A future comparison by Dr. Davis would be of interest.

It is also interesting to see the sparcity of allergic reactions to the nitrofurazone preparation. There is a reluctance on the part of some physicians to use this preparation because of a suspected increased incidence of allergic reactions.

I have found the report of his cultures to be very interesting.

Acute otitis externa is a common malady in Florida, particularly during the summer months, and I believe this article will be of interest to many physicians.

Dr. Taylor, Marshall Taylor Doctors Building, Jacksonville 32207.

Generalized Burning Paresthesia Due to Intravenous Furosemide

Barry J. Materson, M.D.

Furosemide, a potent and clinically useful monosulfamylanthranilate diuretic, has proved to possess a high therapeutic index.[1] Adverse reactions, which have been infrequent, include various forms of dermatitis,[2,3] pruritis, paresthesia, blurring of vision, postural hypotension, nausea, vomiting, diarrhea, hematologic disorders, tinnitus and deafness,[3] acute gout,[4] and sudden death.[5,6] Severe, generalized burning paresthesia following intravenous but not oral administration of furosemide has not, to our knowledge, been reported.

Report of a Case

A 57-year-old unemployed salesman was first admitted to the Medical Service of the Miami Veterans Administration Hospital 10/8/63 because of alcoholic gastritis, acute alcoholic intoxication and delirium tremens. He reported that he regularly imbibed one-fifth of whisky each weekend and a lesser amount during the week. He denied allergies. There was no clinical, endoscopic or radiologic evidence of portal hypertension and he was given no diuretics.

He did well until 1/22/68 when he was admitted because of a poor appetite and a 50 pound weight loss during the previous four months. He was found to have clinical evidence of cirrhosis with ascites. Grade II varices were demonstrated by esophagoscopy. The spleen was palpable. Needle biopsy of the liver revealed portal cirrhosis. He received spironolactone and oral furosemide without adverse effect.

By 3/13/68 fluid retention had become a predominant feature of his disease. He had gained 11 pounds in the three weeks since his last discharge. His ascites and edema were treated with spironolactone, oral furosemide and intramuscular meralluride which resulted in a 25 pound weight loss. There were no adverse reactions.

He was readmitted 54 days after his last discharge because of massive ascites. He had gained 38 pounds. He was given 80 mg. of furosemide intravenously on 6/26 and 6/27/69 and had a moderate diuresis without drug complications; however, he managed to consume enough water to negate the benefits of the diuresis and his ascites became tense. He was then admitted to the Rapid Diuresis Study[7] and accordingly was brought to the Nephrology Service procedure room on 7/8/69 where he was given priming and sustaining solutions of inulin and para-aminohippuric acid (PAH) without reaction. After a one hour control period, a rapid injection of 200 mg. of furosemide into a left antecubital vein was initiated. Approximately two minutes later when 170 mg. of furosemide had been injected, the patient complained of a severe burning sensation starting at the injection site and progressing steadily up his left arm and into the left subclavian region. The injection was terminated. Over the next several minutes the burning sensation progressed cephalad and caudad "from the top of my head to the tips of my toes." The patient stated that he felt as if his entire body were on fire. The sensation became intense and nearly unbearable; he became agitated but remained fully oriented. There was no urticaria, petecchiae, wheezing, dyspnea, cyanosis, palpitations or local reaction around the injection site. Blood pressure was 158 systolic, 90 diastolic, and the pulse was 88 per minute and regular. He was not given antihistamines, epinephrine or corticosteriods. His symptoms began to abate in about 7-10 minutes from the time of the injection and were gone by 30 minutes. He had a moderate diuretic response and had no further problems for the remainder of the procedure. The chart was labeled "ALLERGIC TO LASIX," a detailed progress note was written and the House Staff informed of the incident.

On the following day he was given a 1 ml. (10 mg.) test dose of furosemide intravenously with no untoward effect. An attempt was then made to give 80 mg. of furosemide intravenously, but the injection was terminated after 60 mg. because of "a generalized cutaneous vasodilation with burning sensation without cardiac or respiratory changes." The patient stated that the reaction was identical to that of the previous day although less severe. He was given 50 mg. of diphenhydramine hydrochloride intravenously and the symptoms were quickly ameliorated. He was subsequently treated with large doses of intravenous ethacrynic acid, oral furosemide and hydrochlorothiazide and reacted to none of these.

Comment

When discussing alleged drug reactions one must always raise the question: Was the observed reaction caused by the drug or was it only a fortuitously associated phenomenon? The traditional proof rests upon demonstration of the same reaction on challenge with the suspect drug, but not with other drugs or placebo. We believe such proof was obtained in this patient.

Previous exposure to intravenous furosemide is well documented on the chart. He had received two 80 mg. injections without known incident. The severe burning paresthesia described occurred during the injection of a much larger dose and abated within 30 minutes of its onset. The following day he experienced no reaction to a 10 mg. test dose, but responded with an identical reaction during the injection of 60 mg. He experienced no adverse effects from oral furosemide or intravenous ethacrynic acid. He did not receive furosemide intramuscularly.

From the Department of Medicine, University of Miami School of Medicine, and the Medical Service, Veterans Administration Hospital, Miami.

Dr. Materson is a Research and Education Associate of the Veterans Administration.



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Precautions: Mild leukopenia has been reported during Flagyl use; total and differential leukocyte counts are recommended before and after treatment with the drug, especially if a second course is necessary. Avoid alcoholic beverages during Flagyl therapy because abdominal cramps, vomiting and flushing may occur. Discontinue Flagyl promptly if abnormal neurologic signs occur. There is no accepted proof that Flagyl is effective against other organisms and it should not be used in the treatment of other conditions. Exacerbation of moniliasis may occur.

Adverse Reactions: Nausea, headache, anorexia, vomiting, diarrhea, epigastric distress, abdominal cramping, constipation, a metallic, sharp and unpleasant taste, furry or sore tongue, glossitis and stomatitis possibly associated with a sudden overgrowth of *Monilia,* exacerbation of vaginal moniliasis, an occasional reversible moderate leukopenia, dizziness, vertigo, drowsiness, incoordination and ataxia, numbness or paresthesia of an extremity, fleeting joint pains, confusion, irritability, depression, insomnia, mild erythematous eruptions, "weakness," urticaria, flushing, dryness of the mouth, vagina or vulva, vaginal burning, pruritus, dysuria, cystitis, a sense of pelvic pressure, dyspareunia, fever, polyuria, incontinence, decrease of libido, nasal congestion, proctitis, pyuria and darkened urine have occurred in patients receiving the drug. Patients receiving Flagyl may experience abdominal distress, nausea, vomiting or headache if alcoholic beverages are consumed. The taste of alcoholic beverages may also be modified.

Dosage and Administration: *In the Female.* One 250-mg. tablet orally three times daily for ten days. Courses may be repeated if required in especially stubborn cases; in such patients an interval of four to six weeks between courses and total and differential leukocyte counts before, during and after treatment are recommended. Vaginal inserts of 500 mg. are available for use, particularly in stubborn cases. *When the vaginal inserts are used* one 500-mg. insert is placed high in the vaginal vault each day for ten days and the oral dosage is reduced to two 250-mg. tablets daily during the ten-day course of treatment. Do not use the vaginal inserts as the sole form of therapy. *In the Male.* Prescribe Flagyl only when trichomonads are demonstrated in the urogenital tract, one 250-mg. tablet two times daily for ten days. Flagyl should be taken by both partners over the same ten-day period when it is prescribed for the male in conjunction with the treatment of his female partner.

Dosage Forms: Oral tablets . . . 250 mg.
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*References available on request.

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We cannot explain the mechanism of his severe, generalized burning paresthesia. Unlike ethacrynic acid, furosemide does not cause a transient burning sensation along the course of the vein during rapid injection. There were no clinical findings of anaphylaxis and no visible skin lesions, although the second observer reported "generalized cutaneous vasodilation." One might speculate that a vaso-active substance was released but the failure of the blood pressure to fall or the pulse to increase markedly argues against this. The second reaction occurred after all the inulin and PAH should have been cleared so that it is unlikely that these substances contributed to the reaction.

We question the efficacy of diphenhydramine HCl in this case because of the rapidity with which symptoms resolved after the first reaction. The major significance of this observation is that the adverse reaction, although frightening for both the patient and his physicians, was self-limited and short-lived. No heroic measures were required although a resuscitation cart was immediately at hand. Should similar reactions occur in the future, the responsible physician should first rule out the potentially lethal reactions such as anaphylaxis and then provide intense observation and supportive care. Resuscitative drugs such as intravenous epinephrine have potential danger in such a case and, as in this case, might not be required.

Summary

A severe, generalized burning paresthesia occurred in a patient with cirrhosis and massive ascites during the intravenous injection of furosemide on each of two occasions. He did not react adversely to oral furosemide, hydrochlorothiazide, or to intravenous ethacrynic acid. The reaction appeared to be dose and route dependent and ended without specific treatment or complications in about 30 minutes.

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Large voluntary hospitals function at an unacceptable level of efficiency in this age of technologic and management capability. Many of the problems are the result of a system of governance that precludes the application of rational management principles. Hospital trusteeship must become more representative of the public served and develop competencies and characteristics inherent in the corporate model. The using physician, who initiates all hospital activity, must share in accountability imposed by the employer-employee relation, his share of responsibility should be identified by financial investment.

Reprinted from "If the Doctors Owned the Hospitals," by Morton C. Creditor, M.D., New England Journal of Medicine, January 21, 1971.

A Case of Lightning Stroke

M. A. Nesmith Jr., M.D.

During the four years from 1964 to 1968, 59 persons in the state of Florida died as a result of lightning stroke, according to the Florida State Division of Health.[1] As would be expected, the majority of these victims (55/59) were males.

Helen Taussig has written an article entitled " 'Death' from Lightning—and the Possibility of Living Again."[2] In it she reviews the literature on lightning stroke. The points from Dr. Taussig's article pertinent to the case reported here are presented and a plea is made for immediate and prolonged resuscitation of persons apparently "killed" by lightning.

Ravitch and his associates reported a case of complete recovery from lightning stroke following a long interval of apparent cardiac standstill.[3] Because of the similarity to the present case, their case is discussed in some detail. They reported that a 10-year-old boy struck by lightning was brought to the hospital 22 minutes later, apparently dead. Immediately after the accident a pulse was said to have been felt by a companion Boy Scout, and he had a brief period of manual respiration. He had no respiratory assistance for some 13 minutes before being brought to the hospital. The pupils were dilated, the chest wall did not bleed when a thoracotomy was performed, and the heart was in standstill. Cardiac massage and epinephrine started cardiac contractions, and artificial respiration was maintained for approximately three days. Hypothermia was begun at once. Convulsions and hemiparesis developed, and he was comatose for six days except for a probable brief remission on the fourth day. His ultimate recovery was almost complete except for a nasality of speech.

Case Report

On May 24, 1969, a 14-year-old boy received a direct strike from lightning while playing golf on a course near the United States Army Specialized Treatment Center at Fort Gordon, Georgia. He was thrown to the ground and rendered unconscious immediately. His parents were playing with him and while his mother ran approximately 500 yards to a telephone and called the hospital, his father attempted to perform mouth to mouth breathing.

A corpsman in an ambulance was dispatched to the golf course and found the victim without pulse or respiration and cyanotic. He began external massage and when no immediate response was obtained, radioed the hospital for a physician. One of the physicians on duty in the emergency room was dispatched to the sixth fairway on the golf course, and there found the youth to be unconscious, cyanotic with no cardiac action or respiration. The corpsman was performing external cardiac massage, but no artificial respiration was being done. His golf bag and cart were not damaged and the seven iron that he had in his hands at the time of the strike lay some 40 feet away from the victim.

An endotracheal tube was inserted and ventilation begun and external massage continued as the patient was transported to the emergency room. Examination there revealed the pupils to be dilated. Burns extended from the left supraclavicular area, the point of entry, down the midline of the chest and abdomen, involving the scrotum and penis, down the medial aspect of both legs with exit points just below each medial malleolus. He had been wearing sneakers and a two inch hole was burned in the medial aspect of each shoe just above the rubber soles.

In the emergency room, after approximately ten minutes of external massage and ventilation, a carotid pulse became palpable, and shortly thereafter the systolic blood pressure was recorded at 100. The feet and legs were ashen and pulseless at this time and only after an additional 15 minutes did the pulses and color return to the feet.

Intravenous infusion of Ringer's lactate and sodium bicarbonate was begun, a tracheostomy performed, and the patient was transferred to the Surgical Intensive Care Unit with shallow spontaneous respiration. Shortly after admission to the I.C.U. respiratory arrest occurred and the patient was placed on a respirator. During the night the patient developed extensive subcutaneous emphysema of the chest and abdominal walls, and the following morning respiratory distress and cyanosis occurred and a chest x-ray showed near complete bilateral pneumothorax. Bilateral chest tubes were inserted and spontaneous respiration resumed.

He was treated with moderate doses of steroids, massive antibiotics, restricted intravenous intake and hypothermia. He remained comatose and during the first four days of hospitalization had frequent decerebrate spasms. A positive left Babinski was present.

On May 29, a recurrent right pneumothorax was corrected by aspiration of the chest tube and bronchoscopy revealed no evidence of rupture of the tracheobronchial tree.

Fourteen days after injury on June 7, the chest tubes were removed and the patient was transferred to the Medical Intensive Care Unit, comatose and showing no response to stimuli. For the first time, on June 12, the youth showed some awareness of his surroundings and soon became able to open and close his eyes and hands to command. Gradual improvement ensued until June 23 when abdominal pain and distention were noted. Surgical consultation was obtained and examination revealed a large pelvic abscess.

The abscess was drained through a McBurney incision and gradual physical and mental improvement ensued. He gained weight (his normal weight was 140 lbs., he weighed 80 lbs. prior to draining the abscess), and the paranoid tendencies that had become prominent gradually disappeared.

At the time of discharge on July 28, 1969, his abdomen was healed, there was very minimal spasticity and some difficulty with recent recall. He had a definite nasal quality to his speech, unexplained by any apparent pharyngeal palsy.

Follow-up in the surgical outpatient clinic revealed that the youth returned to school, having no difficulty with his subjects. He began participating in intramural sports and was able to throw and catch a baseball without difficulty. The difficulty with recent recall disappeared, as did the spasticity.

Discussion

The huge pelvic abscess is assumed to have been due to an unsuspected appendicitis masked by coma, steroids and massive antibiotics. Perforation of the cecum or appendix due to the lightning stroke is a possibility, however.

The exact time interval between the lightning strike and the institution of adequate ventilation and massage is unknown but is estimated to be greater than ten minutes. Certainly in Ravitch's case, the interval was known to be unusually long to be followed by near complete recovery.

Taussig,[2] in her review of the literature, describes an unusually long period of time between cessation and resumption of respiration and cardiac action followed by complete recovery. She postulates that following lightning stroke the cessation of metabolism in all cells, including the brain cells, is so instantaneous that the onset of degenerative processes are delayed.

In any event, the purpose of this report is to point out the possibility of complete recovery following lightning stroke and to urge physicians who may encounter this problem to be aggressive and tenacious in attempts to resuscitate these patients.

Summary

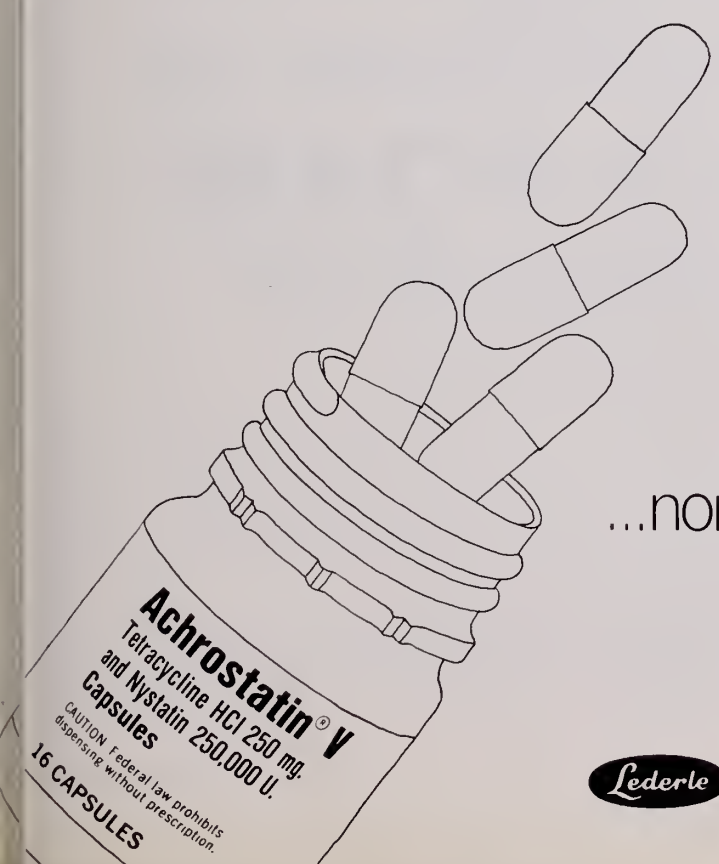
A 14-year-old boy was resuscitated following a direct lightning stroke. Decerebrate spasms persisted for four days, and coma, intermittent seizures and a positive Babinski persisted for 19 days. Early bilateral pneumothoraces and later a large pelvic abscess, presumably due to a ruptured appendix, further complicated his hospital course. His eventual recovery was nearly complete; the only detectable residual being a slight motor difficulty with writing and a nasal quality to his speech.

A plea is made for vigorous resuscitative measures in patients that are "killed" by lightning.

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1. Gordon, E. E. and Haas, A., Indust. Med. & Surg. 28:217, May, 1959.

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Editorial

The Readership Survey

Aware of the pollution of doctors' desks by unsolicited medical publications, one practitioner was prompted to collect, assess and weigh all medical advertising magazines and periodicals he received in a month. He arrived at the total of 30 pounds. Assuming that this same amount is sent to each of the 200,000 practicing physicians in the United States, it would amount to 3,000 tons a month. At a reading speed of 15,000 words per hour, scanning this literature would require 160 hours a month or approximately 40 hours each week, and could only be done by a retired physician, and who, relieved of the burden of his practice, is not encumbered by time-consuming hobbies or the affairs of organized medicine. So, it is with mixed feelings that the returns of the April FMA Journal questionnaires were received.

The immediate response to our questionnaire was both gratifying and humiliating. The first three days, we received 45 replies, one-third of whom did not indicate they had read the Journal. One questionnaire had only one sentence written on it. Our managing editor accused me of sending it, but I told her that my wife must have mailed it in. The sentence said, "I enjoyed the Journal much better when Franz Stewart was the editor." With this reader I concur, and more so on afternoons when I go to sleep trying to take a history from an office patient. This occurs sporadically but usually after staying up late working on the Journal the night before.

In reviewing the returned comments, I was disheartened by the fact that we have received so small a number of replies, this being about 5% of those to whom the Journal was mailed. As this was intended to help us publish a Journal aimed at the rank and file of FMA membership, the first doubt arising was, "is this truly a representative sampling of what the doctors in Florida like and dislike?" Yet, our editorial committee expert on statistics, Ed Willey, says that this is 1½ to 2 times the anticipated returns of such surveys, and so we are planning to use the replies received as an indication of what the doctors in Florida would like to have in the Journal.

Approximately one-third respondents said they often read drug advertising. Of the medical magazines read in order of preference, JAMA and Medical Economics led the list; while, the second, third, fourth, fifth and sixth preferences were all led by the FMA Journal. Special issues, including the annual one on medical history, got an affirmative nod from two-thirds of the replies, while about the same number said the Journal was occasionally helpful and less than one-third stated it was generally helpful. In reply to the question as to which features were liked best in the Journal, scientific articles lead all other subjects by a wide margin. In features liked least, readers mentioned that there are not enough articles in the fields of Pediatrics, Ophthalmology, Orthopedics, Radiology and Anesthesiology, but this is something only individuals in these groups can correct by submitting papers. While the majority of our readers were in specialty practice, one reply recommended that general practice be the theme of more issues as the specialty journals are oriented to their own groups.

Other comments returned were, "make it more relevant to today, include more practical aspects of the practice of medicine," while another comment was, "one publication in a field of too many," "impotent like the JAMA," "should not try to copy specialty journals," and "present more local problems such as liability insurance." One reader suggested that we solicit articles on what

the elderly, unemployed practitioners could do to lighten the load of the younger, busier physicians. A critic of our scientific articles said, "they are not helpful in the practical situations which occur in a physician's office." Other suggestions were: "focus on the problems unique to Florida, provide more information regarding the increasing influence of government medicine," "the Journal should be a crossroad for communication between all Florida physicians," and "write for the doctor who doesn't go to meetings." "Unless it makes money for the FMA, it is a waste of paper," was written on one questionnaire. Another reply asked for more information on AMA and FMA activities.

The problem of keeping down the enthusiasm of the Editor from publishing everything that is submitted and making it so attractive that it will catch the eye of every doctor is balanced monthly against revenue obtained from drug advertising. This fluctuates from month to month so that in any one month, submitted papers considered of sufficient interest to the practicing physician, which we think should be published, may not be offset by advertising fees paid in that month. This is, nevertheless, adjusted in ensuing months when revenue from advertising increases, or else we reduce original material. To make money would incur the inquisition of the IRS while losing money invokes the wrath of the Board of Governors who scrutinizes closely our monthly and yearly audits.

All in all, your editorial staff is seriously interested in publishing a good Journal that will have something of appeal to every subscriber. We are grateful for all the kind words which far outnumbered the adverse remarks, and for the many constructive suggestions. When the Journal no longer serves a purpose, we'll agree with the one recommendation submitted to "stop publishing it." Until that time comes, we're perennial optimists!

C.M.C.

"Florida Medicine"

(Revised)

The 97th Annual Meeting of the Florida Medical Association ended before noon Sunday, May 9th, highlighted by a close race for President-Elect won by Billy Dean of St. Petersburg. In seconding Richard Fleming's nomination, virile Dr. Roberts, dressed as meticulously as ever, got the best laugh of the day when he said, "In 1957 you elected me president and now is your chance to get another good one." James Walker, Charles Donegan and Franklin Evans were re-elected Secretary-Treasurer, Speaker and Vice Speaker of the House, respectively. New members appointed to the Board of Governors include Jere Annis, Gene Peek, Bob Zellner and Joe VonThron. All incumbent AMA delegates were re-elected. Rufus Broadaway was elected to fill the position of our newly obtained sixth seat in the AMA House of Delegates.

The first session of the FMA House of Delegates was opened May 5th, 1971 by Speaker Charlie Donegan who, in his introductory remarks, stated that Franklin Evans, Vice Speaker, would not be present because of an unanticipated period of enforced hospitalization. This year's change in proceedings saw the first meeting of the House opening on Wednesday followed by two additional sessions, Saturday and Sunday, so designed that all business could be transacted, awards bestowed, dignitaries introduced and elections conducted with decorum and with dignity, while every member attending and every delegate present was given an opportunity to speak his opinion, express his gripes or voice a recommendation. Jim Cook, in a humorous but inspiring address, made us aware of the calibre of the man for whom we voted two years before.

At the annual Auxiliary luncheon for FLAMPAC, Joe VonThron displayed his inimitable ability at speaking and made us decide that should he ever go into politics, we would all vote for him. Senator Barry Goldwater was the guest speaker.

This year, reference committees met as usual but began Thursday morning and continuing after lunch as long as anyone in their audiences wanted them to stay. Watching the mechanics of these

committees, one is made aware of how one person can influence the actions of the FMA if he only so wishes, has the courage of his convictions, and the facts to persuade the committee members that he is right. The reference committees, composed of mature, conscientious FMA members, reviewed all matters assigned them, including new resolutions presented by county societies and all business taken up in the preceding twelve months by the Board of Governors. Any member of the FMA may attend these hearings and I've never seen a reference committee refuse to listen to anyone who wished to speak on a subject. On completing these hearings, the committee then sits in executive session and, item by item, reviews again all pros and cons on each matter. Facts and opinions are carefully weighed in order that recommendations can be made. Typed and mimeographed, these reports are then given to the delegates to read at their leisure prior to the next meeting of the House of Delegates. At the second and third sessions of the House, before this body the transactions of these committees are then read by their chairman. Should any delegate wish to take issue with an opinion presented by the committee, he can obtain the floor to challenge the committee and reverse its recommendations if he can convince a majority of the House that he's right. Every submitted resolution and every transaction of business is thus gone over carefully by the House for approval.

At the annual meeting of Blue Shield Thursday morning, the reports of the actions of the Board of Governors were approved by the members present with the exception of three controversial points; these pertaining to Blue Shield policies, not explicitly denoting to the patient that the fee to the doctor was not more or less than his usual and customary fee. To conserve time, Leo Wachtel, treasurer, was asked to be factual and nonhumorous in his report. He mentioned that some $28,714,682 was paid in claims for physicians' services during 1970, the 25th year of operation and that the enrollment of subscribers was 1,304,487. On the Board of Directors, there are thirteen practicing physicians and nine laymen. Five of these thirteen are past FMA presidents.

One matter of information presented by the Council on Scientific Activities was a resume of students graduated by our two medical schools. Of 536 graduated from the University of Florida College of Medicine since 1960, 121 are practicing in Florida and of this number, 44 are in general practice. Since the opening of the University of Miami School of Medicine, 929 students have graduated and out of 497 practicing in Florida, one of every four is in general practice.

Dr. Luis Perez, given the A. H. Robins Award for outstanding community service, told of how Fidel Castro taught him that communism easily can take over when the citizens become apathetic and lose interest in the governing of their country. He urged us not to let the apathy of doctors allow our government to take over the control of medicine.

At the President's reception, Jim Cook and his wife, Lillian, with Floyd Hurt and his wife, Veronna, were greeted by their many friends. The ladies were all beautifully dressed for the occasion and especially so was our full time office staff from Jacksonville. Sam Day had on the brightest coat but it was a toss up between Richard Dever and Gene Peek as to who had on the most colorful pants. Jere Annis had the most ribbons on his badge, one indicating his membership in the Florida Society of Internal Medicine, one as FMA past president and one for AMA delegate.

The girlie show was great but the liveliest show girl at the meeting was Bennie Spanjers who, addressing the House of Delegates, made an inspiring address, telling us, "no one is more on your side than the Auxiliary." The swimming pool had a sign saying, "Closed, dangerous chemicals being added," whenever there was a time to escape from meetings. The ocean was not so marked and that's where a few exercised before 7 a.m. At this time of day you could also see Bennie and Arnold Spanjers "on the run" up and down the beach. The coolest spots in the hotel were the bars but the conference rooms were always crowded at every lecture.

The weather was lovely, the food excellent and friendly Ed Eicher saw to it that every possible facility and service of the Americana was available for FMA members and their guests. It was a fine meeting. If you missed it, you'll find all the details in your July Journal.

C.M.C.

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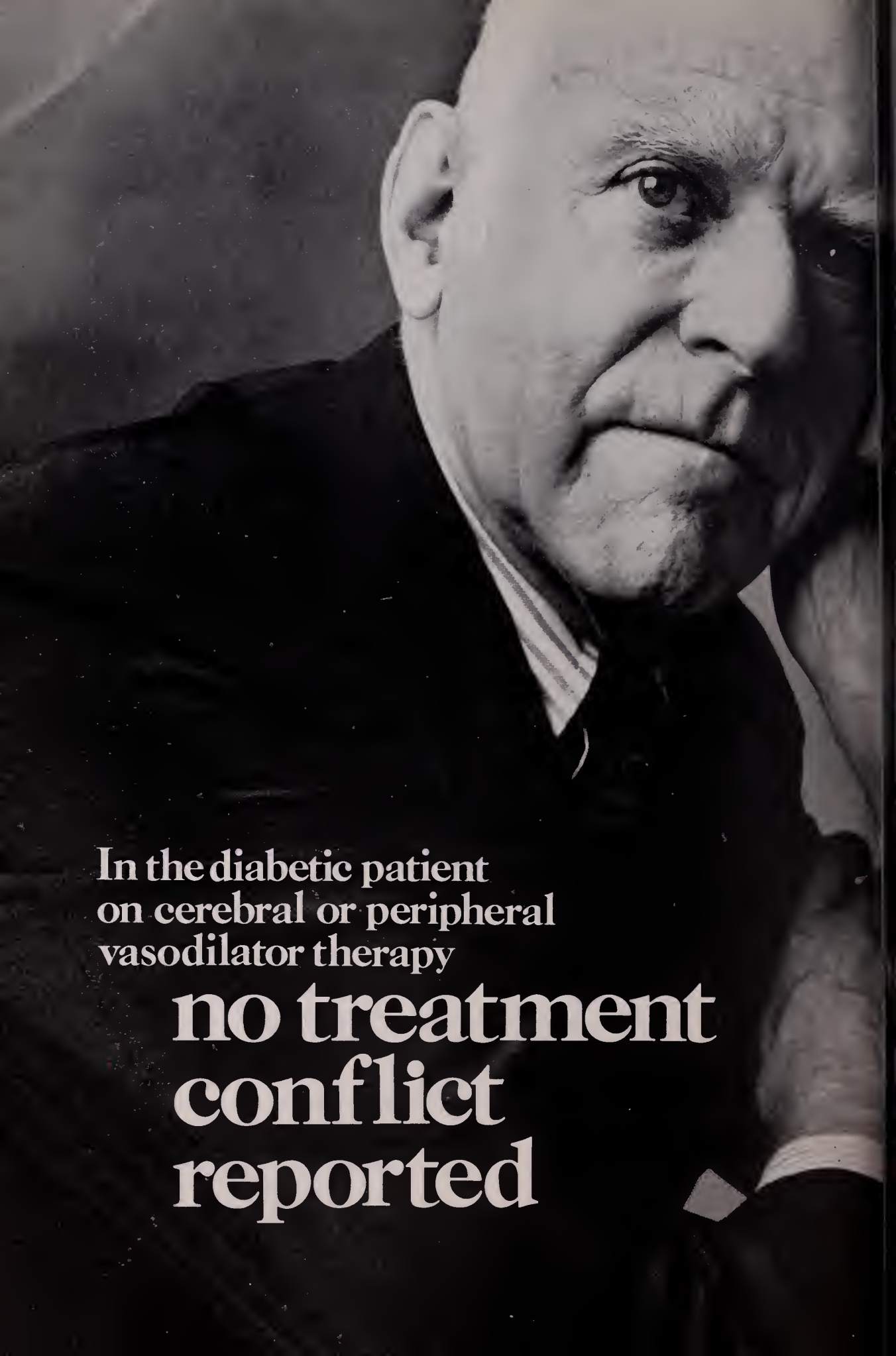
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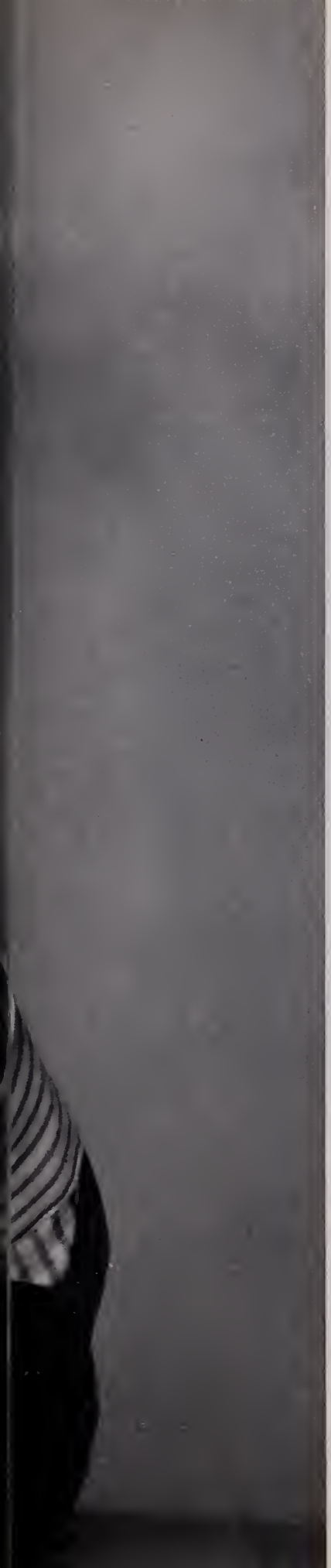
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ORGANIZATION



FLOYD K. HURT, M.D.

Floyd K. Hurt, M.D.
95th President

Eight years ago at the annual meeting, Dr. Floyd K. Hurt of Jacksonville was nominated for the office of Secretary-Treasurer of the Florida Medical Association by Dr. Edward Jelks of Jacksonville, a member of the House of Delegates from Duval County. There were no other nominations.

Dr. Jelks' address was brief. Before he enumerated the more pertinent of Dr. Hurt's responsibilities in organized medicine, he stated: "Two years before he went into the military service, Floyd Hurt practiced roentgenology in Florida. He served three years . . . and at his young age was made chairman of the roentgenological department of the station hospital at Bolling Field. This was done . . . because he had the ability to lead."

The University of Virginia School of Medicine conferred the degree of Doctor of Medicine upon him in 1935 and Dr. Hurt immediately began a two year rotating internship at the Duval County Hospital in Jacksonville. This completed, he returned to the University as assistant instructor in pathology; this then provided him a slightly more than meager salary, and on the philosophy that two can live as cheaply as one, he persuaded Miss Veronna Griffin of Blountstown, Florida to become his wife. After a residency in radiology at Duke Hospital he came back to Jacksonville and entered private practice in 1940, that year becoming a member of the Florida Medical Association.

At the May 1970 annual meeting, Dr. Thad Moseley of Jacksonville, presented the principal address nominating Dr. Hurt as President-Elect of the Association. Since Dr. Hurt's curriculum vitae had been circulated to the delegates, Dr. Moseley was relieved of the recitation of vital statistics and previous responsibilities. More philosophical than Dr. Jelks' had been, his remarks, however, contained similar thoughts. He closed with the statement: "With the insight Floyd has displayed and with his manifest ability, he can bring further honor . . . to the physicians of our state as president of the Florida Medical Association, and in this position deal intelligently and with honor in adjustments . . . which we as physicians might need."

In addition to Secretary-Treasurer, Dr. Hurt has been chairman of the Association's Council on Medical Economics, and Committees on Members Insurance and on Florida Investment Trust. A past president of the Duval County Medical Society and of the Florida Radiological Society, he served as a director of Blue Shield for nine years and as treasurer for three years. He is a Fellow of the American College of Radiology, and a member of the Radiological Society of North America, Inter-American College of Radiology, American Medical Association and American Physicians Art Association. He has been a steward in the Avondale Methodist Church in Jacksonville since 1946 and served on the board of Jacksonville Art Museum. His hobbies are golf and jogging, having steadily lowered his time for the mile to a near record for this area. For the past ten years he has been dabbing in oils, having been described as a locally renown amateur artist. Of late he has been trying his skills in other media and has contributed to and won several awards at the annual FMA Auxiliary Art shows. Little known about Dr. Hurt was a two year hitch in the Merchant Marines before entering medical school when he sailed to the Pacific, stopping at Samoa to admire the home and grave of Robert Louis Stevenson. Dropping anchor at Pitcairn Island, he talked with descendants of "Mr. Christian" who, through inbreeding and malnutrition were short and exhibited many external congenital abnormalities.

Following the nomination there were five seconding speeches expressing official approval of Dr. Hurt as President-Elect. He told the delegates how much he appreciated the honor shown him and then stated: "Even though we have differences of opinion in our House, let us not continue the debates we have had here." The speech had 57 words.

Sunday morning, May 9, a year later, in a simple and brief ceremony, Dr. Hurt became the 95th President of the Florida Medical Association. The reticent radiologist born at Marion, Virginia, whose family includes two daughters, Robbie Jean Mitchell and Caroline, has practiced his specialty in Jacksonville 31 years, less three spent at Bolling Field Air Force Hospital near Washington, D.C., and had held his first recorded office in organized medicine 25 years previously—treasurer of the Duval County Medical Society.

F. R. M. P.

The Directors of the Florida Regional Medical Program, Inc., (FRMP) went to the Florida Medical Association last month with a request for the preparation of a report of health problem areas as seen by Florida physicians and to propose activities considered appropriate by the FRMP to pursue in solving these problems.

The decision to invite renewed FMA guidance evolved from a wide-ranging and frank discussion at the April 24 Board meeting in Orlando. The Directors declared they sought to provide a program which practicing physicians of Florida want and, most importantly, will use. They debated such questions as (1) whether Regional Medical Programs generally have shifted from their original design; (2) what is the role of Regional Medical Programs in the changing health care situation; (3) do current projects and activities contribute to the RMP mission; (4) is the money invested in these projects and activities bringing an appropriate return in results; (5) why is there an apparent reluctance on the part of practicing physicians to participate and (6) how to allay the suspicions of physicians who instinctively shrink from anything smacking of a federal management?

First, the Directors considered calling upon their own Executive Committee to conduct an evaluation of FRMP. Then it was suggested that a broader approach might be more productive by bringing to light the real needs and desires of the practicing physicians. One Director noted that "you can't force knowledge on the man who doesn't want it," arguing that it would be more practical to provide a desired program than to "try to sell a reluctant physician a course he's not interested in taking."

Dr. Emanuel M. Papper, Dean of the University of Miami School of Medicine, a member of the original DeBakey Commission that helped design the original Heart Disease, Cancer and Stroke proposal stated that the committee's original purpose was "to bring the fruits of scientific research to the sick person by whatever means possible," and that somehow FRMP should redirect its course to that end.

Dr. Jim Hirschman of Miami reminded the Directors that inequities in health care do exist and perhaps it was the duty of the Board to determine what these are and what can be done about them. Emanuel Suter, Dean of the University of Florida College of Medicine, agree that much dissatisfaction with RMP has a his toric basis, probably resulting from the origina idea that there would be astronomical funds avai able for the asking. Now it is time for some re thinking, he said. The State Director of FRMI Granville W. Larimore, M.D., of Tampa, aske to comment on the discussion, reviewed the his toric difficulties and outlined the dilemma of re gional medical programs today, particularly i view of the indecision in Washington as to thei role in the national health picture. He said tha a planning period of a year or a year-and-a-hal would have been the ideal way to institute a re gional medical program but instead, quite sudden ly, the program found itself with operational proj ects to conduct concurrently with planning.

The verbal environment remained harmonious in spite of many remarks criticizing FRMP as having failed to fulfill its primary mission. Dr H. Phillip Hampton, chairman, summed up the meeting with the statement that new directions for RMP are in the offing, notably in the de livery of health care.

In other business, the FRMP welcomed Dr Jere W. Annis, as a new member, succeeding W. Harold Parham, executive vice president of FMA, who had completed his second term as a member.

Directors elected to membership M. Lee Bentley, Tampa Banker, succeeding Baya Harrison, St. Petersburg Attorney, who resigned as public representative on the Board.

The Board approved the revised (reduced) budget of $1,355,000 for the FRMP's current year, authorizing the State Director to make adjustment among projects and Core with savings that might accrue during the year.

Take care with the beginning of friendship, for the end will always manage itself.

James Lytton



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Dean's Page

Editor's Note: This is a feature, beginning with the May issue, which will add one more chore to the already overworked physician heading each of our medical schools. This will be a monthly page to which they have agreed to contribute at quarterly intervals in order to improve communications between our centers of learning and the practicing physicians. It is hoped that this will work advantageously to all concerned.

The Importance of the Health Team Concept

Emanuel Suter, M.D.

With the rapid development of new knowledge and its incorporation into practice, medicine is undergoing constant change. The rapidity of these changes and their effectiveness in regard to improvement of patient care is dependent mainly upon the practicing physician. The physician, on one hand who attempts to stay abreast of new scientific discoveries relevant to medicine and to incorporate these into patient care practice frequently is overtaxed and unable to deal effectively with these problems. On the other hand, medical schools have been singularly unsuccessful and ineffective in assisting the physicians in this process of renewal. Part of this impasse stems from ignorance of the optimal methodology suitable for continuing education, but it also is due to a lack of communication between physicians and medical school faculties as to the real needs of physicians and their desires for continued learning. Of some additional importance is the lack of funding available to medical schools for these efforts. Nevertheless, most informed physicians and medical school faculties recognize the importance of continuing education of the physician as a component of the total effort toward optimal patient care.

The total resources in our state of physicians, medical school faculties and other agencies possibly could be utilized to maximum advantage if an organization such as the Florida Regional Medical Program could assume a leadership role in the continuing educational process. FRMP, which is composed of representatives of organized medicine, medical schools, other health professions, health agencies, and the consumer, seems ideally suited to play such a role. The central staff, working in close collaboration with the Florida Medical Association, could undertake a survey as to the actual educational needs of practicing physicians who are attempting to improve patient care. Subsequently, FRMP could engage the educational institutions, particularly the existing medical schools to organize and implement suitable educational programs. Representation by other health professions in FRMP, as well as in the medical school setting, would permit the development of a broader continuing education program affecting all health professions and promulgating the importance of the health team concept.

If this seems a realistic suggestion, then it becomes most important for the membership of FMA and all practicing physicians to identify strongly with FRMP and empower this program to work with them in accomplishing these objectives. It should be emphasized that the original intent of the legislation establishing the Regional Medical Programs was to bring the accomplishments of the medical sciences to patient care through the education of the physician. It is quite possible that such a single objective will make it possible for the state of Florida to have a Regional Medical Program that is embraced by all: the physicians, all health professions, the patient, the health agencies, and the medical school faculties.

Dr. Suter is the Dean, University of Florida College of Medicine, Gainesville.

Dr. Suter, University of Florida College of Medicine, Gainesville 32601.

General News

Dr. Scott Assumes Presidency of ASCC

Joseph W. Scott, M.D., of Miami, has assumed the presidency of the American Society for Colposcopy and Colpomicroscopy succeeding the late Dr. Tom Ball.

Dr. Scott received his M.D. degree from the University of Maryland in 1942, is a member of the Dade County Medical Association and the Florida Medical Association. He is a Diplomate of the American Board of Obstetrics and Gynecology and is a founding member of the ASCC.

Association of University Anesthesiologists

Frank Moya, M.D., of Miami, has been named president-elect of the Association of University Anesthesiologists.

Dr. Moya is professor and chairman of the Department of Anesthesiology at the University of Miami School of Medicine. He is a member of the Dade County Medical Association and the Florida Medical Association.

Membership in the elite association Dr. Moya will head is limited to 100 persons. It was founded in 1953 by Emanuel M. Papper, M.D., now the dean of the medical school and vice president for medical affairs at the University of Miami.

Medical Art Competition

Two Floridians have been named prize winners in the 1971 SAMA-Eaton Medical Art Award Competition.

Charles W. Israel, M.D., placed third in photomicrography in the medical student-house staff division. The same award in the professional division went to Joseph Goren. Both are associated with the Bascom Palmer Eye Institute in Miami.

The competition has been sponsored every year since 1958 by the Student American Medical Association in cooperation with Eaton Laboratories of Norwich, New York. The program intends to stimulate the use of graphics in medical communication.

AMA Dues Exemption

Inquiries are common regarding the dues status of senior physicians.

An AMA member is eligible for dues exemption when he reaches 70 years of age; however, such a member is not entitled to receive any AMA publication other than by subscription.

Each year, the Florida Medical Association sends a notice to members who have reached the age of 70 advising them of their right to a waiver of dues. Requests for dues exemption must be transmitted to AMA through the Florida Medical Association.

FMA has a generally similar dues exemption provision, except that the Board of Governors must approve all such requests.

Nursing School Deans Study Health Care Delivery

Deans of schools of nursing are combining concern for the people's health with acceptance of responsibility for improving the delivery of health care, according to the American Association of Deans of College and University Schools of Nursing. The 130 member deans will try to find and test means by which nurses may make quality health care accessible to the public at reasonable cost as they work with other health professionals.

The deans state they will examine their educational programs critically in order to ensure that graduates are prepared to deliver the level of care to which the people are entitled.

The nine percent reduction in federal funds for nursing education in fiscal year 1972 will curtail the number of professional nurses and, thus, adversely affect the delivery of health care, they maintain.

AMA Meeting, June 20-24

An attendance of 32,500 is anticipated for the 120th annual convention of the American Medical Association in Atlantic City, N.J., June 20-24. Headquarters for the convention, and the scene of the sessions of the policy-making House of Delegates, will be Chalfonte-Haddon Hall Hotel.

Dr. Wesley W. Hall of Reno, Nev., will take office as president of AMA, succeeding Dr. Walter Bornemeier of Chicago. A new president-elect and other officers will be elected to serve during the coming year.

The scientific program will be conducted at Atlantic City Convention Hall, which also will house the exhibits. Each of the 23 major scientific sections will conduct scientific programs.

17th Annual Southern OB-Gyn Seminar

The 17th Annual Southern Ob-Gyn Seminar will be held at Asheville, N.C., August 1-6, at the Grove Park Inn.

Faculty includes Dr. Bayard Carter and Dr. Roy Parker of Duke University; Dr. Charles Hendricks and Dr. Robert Ross of North Carolina University; Dr. Robert Greenblatt of Georgia; Dr. Ed Tyler of Los Angeles; Dr. Don McEwen of Canada, and Dr. Abe Mickal of New Orleans.

For Information write: Dr. George Schneider, Ochsner Clinic, 1514 Jefferson Highway, New Orleans, La. 70121.

Fellows of IMA

Two Florida physicians were among 47 doctors from throughout the country who were installed as Fellows of the Industrial Medical Association, during the 56th Annual Meeting in Atlanta on April 21. The Floridians are Dr. Joseph A. Baird of Bradley and Dr. Julio R. Serrano of Miami, both members of the Florida Medical Association.

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Reprinted from

The Physician as an Insurer

Jere W. Annis, M.D.

There is no compelling reason to attack the health care delivery problem by reversing the roles of the parties involved.

Everyone, politicians, government officials and the news media are banging the panic button for the newly discovered crisis in medical care. They are unearthing, refurbishing, embellishing and dramatizing facts of life which have been present, and improving steadily throughout the ages. They have discovered that everyone in this country, and to an even greater extent, in the world, is not getting ideal medical care. The headline appeal of this exposure is rivaled only by its political vote-getting potential.

Philosophers and healers

Predictably, as with any new national obsession, expertise abounds, and experts, themselves, are coming out of the woodwork from every discipline. It's been a field day for conjecture, armchair philosophy and fantasy. And speculation has been uninhibited by constricting budgets, realism or even the sobering basic data necessary for an understanding of it all.

So it's not really surprising that insurance organizations have been projected into planning for the delivery of health care, that physicians have been suddenly qualified as actuaries and insurance experts, and that government officials have emerged as the philosophers, financiers, and healers particularly well qualified for transforming an impossible dream into a practical panacea.

A tremendous explosion in medical knowledge and technology has taken place during the past several decades. There is no question in any thoughtful person's mind that better answers are now available to many medical problems than ever before. There are also potentially many more applications for our professional armamentarium than have been present in the past. Neither is there any doubt in this same thoughtful person's mind that more people are getting better medical care today than they ever have.

Certainly, we need more sophistication, more efficiency and more effectiveness in the application of our medical technology. Just as certainly, we will always need these things. We are making steady progress in this aspect of medicine. We should lend our every effort to insuring that this progress continues and accelerates.

But, we must be realists. We must realize that education, environment, ecology and patient motivation are important factors in securing adequate health care and we must try to improve all these.

A matter of logic

There would seem to be no compelling logic in attacking the health care delivery problem by reversing the roles of the various people involved —qualifying the physician as an insurer or the insurance company as the deliverer of health care.

Instead, it might be more logical to charge America's physicians simply with the obligation of producing the maximum quantity of the highest quality medical care of which the profession is capable. Insurance companies and their actuaries should be charged with establishing a premium that would cover the cost of this care when paid for on the basis of usual, customary and reasonable fees.

It certainly seems unreasonable to inject the physician into the insurance business to the extent that his capitation fees provide him with a built-in incentive to render as little care as possible to as few people, or to defer necessary surgery, hospitalization, and even investigative procedures, be-

Dr. Annis has practiced internal medicine at the Watson Clinic in Lakeland, Florida since 1938 and has been a managing partner since 1954. He is Chairman, Medical Advisory Committee, University of Florida; a Delegate to the American Medical Association; Past-President of the Florida Medical Association; Past-Director and Vice President of Blue Shield of Florida, Inc., and Past-President of the American Association of Medical Clinics. Dr. Annis is the author of more than a dozen professional papers, collaborating editor of two professional books and co-author of a novel.

cause of the economic advantage to the physician. In other words, he should not be made to treat his panel or his regiment rather than his individual patient.

Distributed mediocrity

Herein lies the basic difference between the philosophy of the socialist and the physician. The socialist is concerned with society at large, but not with its component individuals. He is concerned with the masses and the general averages rather than people. The physician is, and always has been, involved in an intensely personal relationship with one individual and only secondarily with society.

Although there are things to be said for both points of view, it is pretty obvious which proponent you and I would choose to attend us when we are sick. The socialist is intent upon providing an even distribution of mediocrity—the physician with achieving the highest degree of excellence for his patient, and in out-performing all others in this specific event. Here, equality and excellence are mutually exclusive terms. We must make a choice.

Other fundamentals

Certain other basic fundamentals have been overlooked in the cavalier attitude with which many approach the problem of national health insurance. The first, quite obviously, is can we, as a country, afford the ideal preventive and therapeutic medical care that we could wish for every person in the United States?

The answer seems equally obvious. We cannot, any more than we can afford ideal education, diet, culture, clothing or environmental surroundings. It may be a sad fact, but it's true. Perhaps we must, for at least the foreseeable future, continue to bend our major medical efforts toward treating those who are already ill rather than the enticing philosophical concept of practicing exclusively preventive medicine.

We can't afford it, and frankly, as physicians, we're not that good at it. Certainly, we need to practice it insofar as is practical, but here again we must be realists, particularly if we can't afford the whole package.

An ethereal myth that pervades the fuzzy and utopian atmosphere surrounding many dreamers and demagogues is that insurance somehow decreases the cost of a service. Insurance doesn't reduce the cost of anything. It almost invariably enhances it, even though it spreads it more evenly over a larger base. The individual demands must be unpredictable for events to be profitably insurable, just as the total utilization must be predictable and controllable.

The demand certainly is not unpredictable if we allow everyone a routine physical examination each year, and there is no sense insuring against it. We may save in anticipation of a predictable cost, but it hardly comes under the definition of "insurance" if we know that, like Christmas, it's going to occur on a regular basis. And, we certainly can't afford an open-end prepaid program, in which everyone can have all the medical care that he may need or be able to use.

A passport to poverty

To ask a physician, through an HMO or any similar organizational nightmare, to predict and then underwrite the amount of medical care his small group of patients will need during a year, is to invite him to control the care that they get. It insures the fact that the care will be inexpensive, physician-oriented and of a quality just sufficient to keep him within the limits of his contract.

It is a passport to professional poverty if one ever was written. It poses a conflict of interest and a lack of incentive that will forever level those peaks of medical excellence which exist so frequently and so generally in our country. It is a brand of military medicine which, while reasonably effective for the controlled age span of the normal, healthy soldier or the well-baby clinic, is far from attractive to the varied range of age, health and background of our general population.

All of the old ideas about the delivery of medical care which evolved gradually over the years are not bad. I am sure they can be improved. I am equally sure that they do not need to be exploded. Let's let physicians practice medicine, and the government underwrite the insurance companies for those patients who are unable to carry their own insurance.

Let's keep the whole project on a realistic and fiscally sound basis, with each discipline stimulated to do its own thing—the thing it does best—and to keep striving to do it better than it has ever been done before. Such an approach would seem bound to produce better results than those attained by each of us trying to play the other fellow's game. After all, we are professionals. Let's act like it.

▶ Dr. Annis, Watson Clinic, Lakeland 33802.

Reprinted from Group Practice, February 1971.

Actions and Inactions

Although officers of the Broward County Medical Association are members of the establishment, they do not follow a prescribed pattern but try to make justified changes within our organization and at higher echelons of organized medicine. They do not hesitate to make waves.

The A.M.A.'s inadequate efforts to relieve our malpractice insurance problems have been understandably futile. The Florida Medical Association is trying to have legislation passed (by a body composed largely of lawyers) that will limit the income of many attorneys. Our county officers will meet soon with those of the county Bar Association to exchange thoughts and possibly learn how some solution might be approached that would be fair to the patient, his attorney and his physician.

Establishment of a file of suit prone patients may provide timely warnings. Such patients should be reported to the BCMA office so that if other physicians encounter them, they may be referred to the previous doctor for information. Ordinary problems as fee adjustments, etc. would not be included.

Without having specific detailed knowledge of our local health deficiencies, we have been deluged by Washington and Chicago with urgent comments that stress the need for more physicians and for a complete change in the method of medical care delivery. Thus we have the solution without knowing the problem. As adequate health care includes consideration of housing, food and nourishment, clothing, sanitation, recreation, family planning, preventive medicine, narcotic and crime problems, etc., cooperation of all segments of our society is needed. With adequate volunteer personnel, the program of study could be started without a large outlay of funds. To begin this job, and it will evolve to be a big one, I believe that the clergy with their dedicated personnel and supporters, as well as their know-how, could be a major contributor. Therefore I have asked the help of the county ministerial organization.

We are investigating the possible failure of health insurance companies to pay out the amounts that premiums contracted for. This is a complaint of people who have policies with several companies.

A recent report of the A.M.A.'s Judicial Council makes it even more difficult to convince doubting members of the value of belonging to the national organization. This report stated with ill concealed venom that (1) many letters have been received complaining of apparent preoccupation by an increasing number of physicians with finances, (2) the council reaffirmed the idea of medical care for all, whether able to pay or not, (3) physicians should be cautioned against the pitfalls of undue concern with financial aspects, etc. These oblique accusations by our own organization are unjustified.

Apparently, by its own actions and inactions the A.M.A. has caused the questions to be raised, "Is competition necessary for the healthy functioning of organizations as well as for businesses and individuals? Is there a place for another national medical organization that is more realistically oriented?"

Paul E. Gutman, M.D
Pompano Beach

Reprinted from The President's Page, The Record, Broward County Medical Association, April 1971.

The three most difficult things are: to keep a secret, to employ time properly, and to bear an injury. Never speak evil of the dead. Reverence old age. Govern your anger. Be not over-hasty. The tongue ought to be always carefully restrained, but especially at the festive board. Seek not impossibilities. Let your friendship be more conspicuous in adversity than in prosperity. Prefer loss to ill-gotten wealth; the former is a trouble only once endured, but the latter will constantly oppress you.

—*Chilon (6th cent.* B.C.*)*

The Disabled Physician

The eighteen-month old amendment to the Medical Practice Act of Florida presents a solution to a most difficult of problems: how to care for the physician whose illness impairs his professional effectiveness.

With the license to practice goes implied consent to submit to investigation of such illness. A colleague may report observation on impairment of another physician by affidavit to an impartial evaluation.

The essence and protective mechanism is the provision that permits an investigation of truth of such a report. An appointed investigating physician is assigned to the case. Allowed only to question whether the doctor is unable to practice with reasonable skill and safety, the appointed board schedules a hearing at which the physician of concern is allowed to present his position. Whatever the decision, the board is not empowered to revoke a license but only to limit practice until rehabilitation is completed. A continuing program of medical care, whether psychiatric or physical, may be insisted upon.

The goal is to assist the physician with his problems while he continues to be productive. Protection of the patient is inherent. Such a plan should be required as a part of New York State medical licensure.

Reprinted from the Westchester (New York) Medical Bulletin, April 1971.

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MEETINGS

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JUNE

14-18 Fifth Annual Workshop in Electrocardiography, Redington Beach, St. Petersburg. For information: Henry J. L. Marriott, M.D., St. Anthony's Hospital, St. Petersburg 33705.

AUGUST

19-21 Postgraduate Obstetric-Pediatric Seminar, Diplomat Hotel, Hollywood. For information: A. F. Caraway, M.D., Div. of Health, P.O. Box 210, Jacksonville 32201.

NOVEMBER

19-20 Tenth Annual Physicians' Seminar on Respiratory Diseases and Workshop for Allied Health, Perdido Bay Inn & Golf Club, Pensacola. For information: Jay D. Williams Jr., M.D., Box 8127, Jacksonville 32211.

Florida State Board of Medical Examiners:

July 25-27, 1971, Miami Beach

January 16-18, 1972, Tampa

For information: Mrs. Marjoriann Keebler, Assistant Director, Florida State Board of Medical Examiners, 2717 E. Oakland Pk. Blvd., Fort Lauderdale, Fla. 33306.

National and Regional Meetings Held in Florida

JULY

2- 5 Tenth Anniversary Meeting, Cuban Medical Association in Exile, Four Ambassadors Hotel, Miami. Pres.: Dr. Enrique Huertas, Box 1016, Coral Gables, Fla. 33132.

AUGUST

26-29 United Ostomy Association, Diplomat Hotel, Miami Beach. Exec. Dir.: Donald P. Binder, 1111 Wilshire Blvd., Los Angeles 90017.

30-Sept. 2 Western Hemisphere Nutrition Congress, Americana Hotel, Miami Beach. Info.: AMA Council on Foods and Nutrition, 353 N. Dearborn St., Chicago 60610.

OCTOBER

4- 7 American Academy of Family Physicians, Miami Beach. Exec. Dir.: Mr. Mac F. Cahal, JD, Volker Blvd. at Brookside, Kansas City, Mo. 64112.

12-16 Congress of Neurological Surgeons, Americana Hotel, Bal Harbour. Sec.: Bernard S. Patrick, M.D., University Medical Center, 2500 N. State St., Jackson, Miss. 39216.

NOVEMBER

1- 4 Southern Medical Association, Miami Beach. Exec. Dir.: Mr. Robert F. Butts, 2601 Highland Ave., Birmingham, Ala. 35205.

2 George Papanicolaou Memorial Seminar in Gynecologic Pathology, Fontainebleau Hotel, Miami Beach. Dir.: George Ioannides, M.D., 1830 S.W. 99th Ave., Miami 33165.

4- 6 Southern Thoracic Surgical Association, Tampa. Sec.-Treas.: James W. Brooks, M.D., 1200 E. Broad St., Richmond, Va. 23219.

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The Doctor

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If, as Henry Brooks Adams speculated, "A teacher affects eternity; he can never tell where his influence stops", the outlook is optimistic.





Book Reviews

The Early Orthopaedic Surgeons of America by Alfred Rives Shands Jr., M.D. Pp. 190. 156 illustrations. Price $15. St. Louis, C. V. Mosby Company, 1970.

This beautifully bound and crafted volume presents biographical sketches of eleven of the pioneers in orthopaedic surgery in this country. The sketches are delightfully written with many human interest items that vividly portray the character and contributions of each surgeon. Enough background information is provided for the physician who is not an orthopaedic surgeon to understand the significance of these contributions. A delightful feature of the book is many illustrations taken from orthopaedic books of bygone days that graphically portray the development of braces and orthopaedic machines which in modified form are used today. The author is careful to detail references for each of the sketches which will enable the more serious student to obtain further information, if such is desired. An innovative feature of this volume is a summary chapter in which the author provides a brief summary of each biography designed to quickly answer the question, "Who was each one?" and, "What was his contribution?" Finally, the volume is well indexed, making it a useful reference for one seeking to track down some small facit dealing with the history of orthopaedic surgery in this country. For the orthopaedic surgeon or other physician who would like to know something about the personality of the man who discovered a certain procedure or designed a brace, this book is a valuable reference.

William M. Straight, M.D.
Miami

Atlas of Human Electron Microscopy by Ruben I Laguens and Cesar L.A. Gomez D umm. Pp. 180. Illustrated. Price $20.50. St. Louis, The C. V. Mosby Company, 1969.

The Atlas of Human Electron Microscopy is a erudite and unique contribution from many standpoints. For example, only tissues characteristi of the human species are illustrated, omitting bon cartilage and skeletal muscle. No less than on half page is allotted to each photomicrograph, and many are full page. The descriptions are succinc and immediately facing each illustration. Ultrastructural details are marked on the photomicrograph and clearly identified in the associated text The specimens are all normal; no pathology is represented.

There are no correlating anatomical drawings, photographs, or light-microscopy photomicrographs. These may be missed by those readers in clinical practice who are somewhat removed from their microscopes; however, the fascination of electron microscopy is that it creates a new discipline, so that while gross concepts should be retained, ultrastructures can be appreciated in themselves.

The complete physician today must be as familiar with mitochondria and microvilli as with the pancreas and pituitary. This atlas will well afford him an excellent introduction to these ultrastructural relationships.

Harry W. Eichenbaum, M.D.
St. Petersburg

Man may be the captain of his fate, but he is also the victim of his blood sugar.

Wilfrid G. Oakley

Receipt of the following books is acknowledged. While time and space will not permit review of all books received, medical readers interested in reviewing particular books are invited to address requests to the Editor. Following acceptance of a written review for publication, a reviewer may then retain the book reviewed for his personal or favorite library.—Ed.

The Adolescent Patient by William A. Daniel Jr., M.D. Pp. 444. 76 illustrations. Price $20.50. St. Louis, The C. V. Mosby Company, 1970.

Spectroscopic Approaches to Biomolecular Conformation edited by D. W. Urry. Pp. 314. Illustrated. Price $15.00. Chicago, American Medical Association, 1970.

Urological Surgery. 4th Ed. by Austin Ingram Dodson Jr., M.D. Pp. 617. Price $32.50. 694 illustrations. St. Louis, The C. V. Mosby Company, 1970.

The Low Fat Low Cholesterol Diet by Clara-Beth Young Bond, R.D.; E. Virginia Dobbin, R.D., and Helen F. Gofman, M.D. Pp. 512. Price $7.95. New York, Doubleday Company, Inc. 1971.

Infection Control in the Hospital by the American Hospital Association. Pp. 154. Price $4. Chicago, Illinois 1970.

Development and Legal Regulation of Coercive Behavior Modification Techniques With Offenders by Ralph K. Schwitzgebel, Ed.D., J.D., Harvard University. Pp. 90. Price 45 cents. Public Health Service Publication 2067, U.S. Government Printing Office, Washington, D.C. 20402.

Portrait of Aphasia by David R. Knox. Pp. 120. Price $5.95. Detroit, Wayne State University Press, 1971.

Think Thin by Thomas M. Quehl, M.D. Pp. 95. Illustrated. Price $4.95. New York, Vantage Press, Inc., 1971.

Biological Rhythms in Psychiatry and Medicine by Gay Gaer Luce. Pp. 183. Price $1.75. Washington, D. C., U.S. Government Printing Office, 1970.

Handbook of Obstetrics and Gynecology by Ralph C. Benson, M.D. Illustrated by Laurel V. Schaubert. Pp. 774. Price $6.50. Los Altos, Lange Medical Publications, 1971.

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MEDICOLEGAL

HYSICIAN MUST WARN FAMILY F PATIENT'S CONTAGIOUS DISEASE

A physician has a duty to advise and warn embers of a family living with a patient of the atient's contagious disease, a Florida appellate ourt ruled. The physician's negligent failure to iagnose the disease would not negate this duty.

A man was examined and treated for about wo years before the physician made a diagnosis of uberculosis. The patient's two-year-old child was ater found to have tuberculosis of the spine. Both he father and the child required extensive reatment.

The father filed a lawsuit against the estate of he then-deceased physician, not only for his own njuries resulting from alleged negligence in diag- osis, but also for the injuries sustained by the hild as a result of contracting the disease from im. The trial court granted a summary judgment or the estate of the physician with respect to the hild's injuries, and the father appealed.

On appeal, the executrix of the estate con- eded that there might have been an issue of fact is to the negligent diagnosis of the father's disease. However, she contended that the physician had no luty to the minor child and, therefore, no recovery ould be permitted for the child's injuries resulting rom the alleged negligence.

Once the existence of the disease is known, a physician has a duty to inform a patient's family of the nature of the disease and of precautionary steps to be taken, the court held. The fact that the physician may negligently fail to diagnose the disease does not excuse him from this duty, the court ruled.—*Hofmann v. Blackmon,* 241 So.2d 752 (Fla. Dist. Ct. of App., Sept. 30, 1970; rehearing denied, Dec. 29, 1970)

Reprinted from Citation, prepared by the Office of the General Counsel, American Medical Association, April 1, 1971.

DEATHS

Bailey, Jesse K., Miami; born 1888; Eclectic M. C. Cincinnati, 1920; member AMA; died January 22, 1971.

Caldwell, Frederic E., Fort Walton Beach; born 1913; Western Reserve University, 1950; member AMA; died July 26, 1970.

Feigenbaum, David, Miami; born 1921; Tulane University, 1951; died January 17, 1971.

Gable, Linwood M., St. Petersburg; born 1896; Emory University, 1916; member AMA; died April 10, 1970.

Gould, Sylvester E., Miami; born 1900; Michigan Medical School, 1924; died November 29, 1970.

Kneedler, Milo W., Clearwater; born 1896; Harvard University, 1924; member AMA; died October 23, 1970.

Kobley, Donald E., Miami; born 1925, Emory University, 1948; member AMA; died December 13, 1970.

Lefholz, Rothwell, Miami; born 1898; St. Louis University, 1924; died March 11, 1971.

Miller, Robert L., Daytona Beach; born 1889; Jefferson Medical School, 1917; member AMA; died October 25, 1969.

Mitchell, William S., Orlando; born 1908; Emory University, 1934; died January 14, 1971.

Pilcher, John J. Jr., Boynton Beach; born 1923; Medical College of Georgia, 1952; member AMA; died March 26, 1971.

Stahl, Pincus A., Miami Beach; born 1896; New York Medical School, 1921; member AMA; died December 1970.

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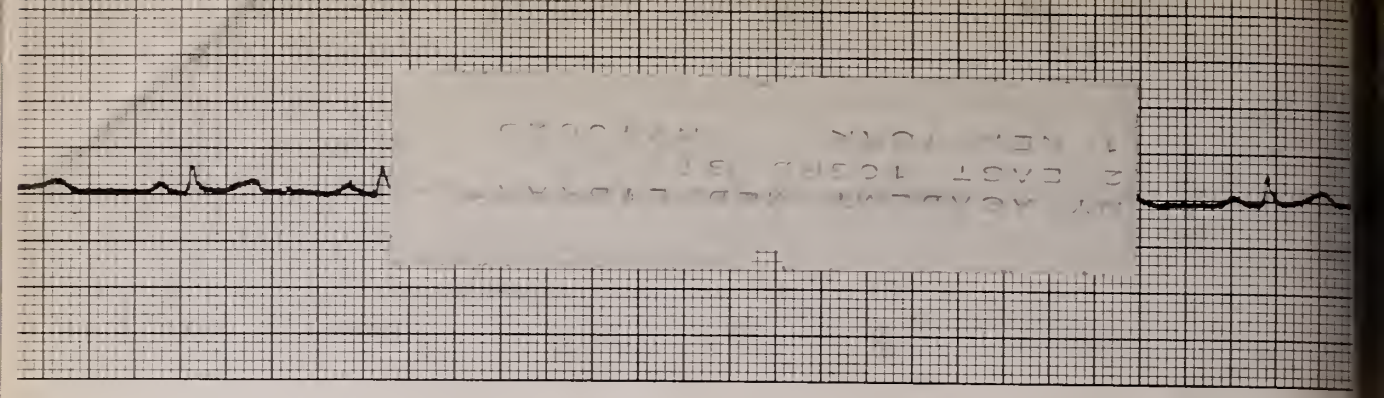
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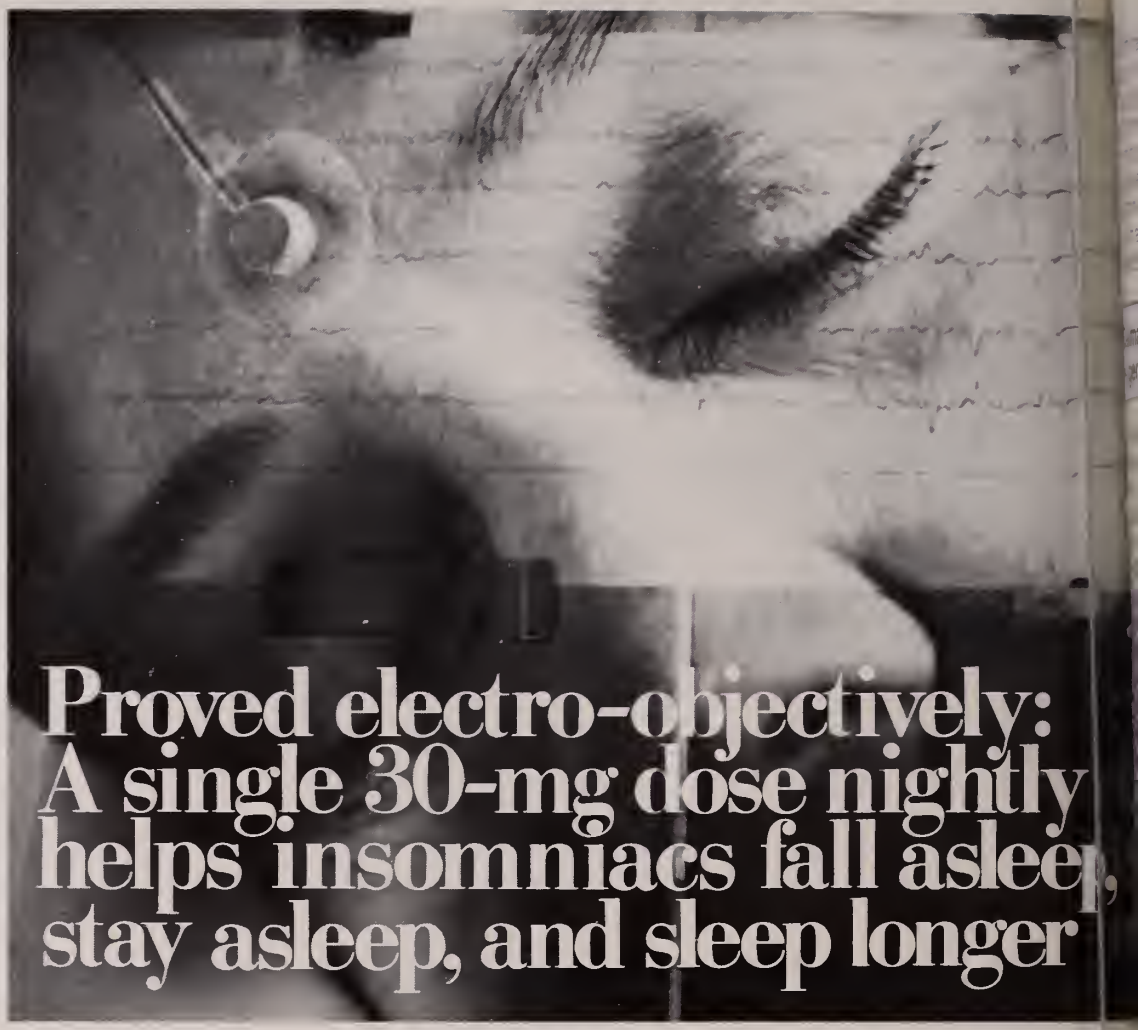
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THE JOURNAL OF THE Florida Medical Association

JULY, 1971 • VOLUME 58 • NUMBER 7

THE FLORIDA MEDICAL ASSOCIATION, INC. 1834



Proved electro-objectively: A single 30-mg dose nightly helps insomniacs fall asleep, stay asleep, and sleep longer

Controlled studies of 23 insomniac and 13 normal subjects treated with Dalmane (flurazepam HCl) in five sleep laboratories generated over 4000 hours of electroencephalographic, electro-oculographic and electromyographic tracings. These studies revealed that Dalmane 30 mg nightly usually induces sleep in 22 minutes and provides seven to eight hours of sleep.[1,2,3]

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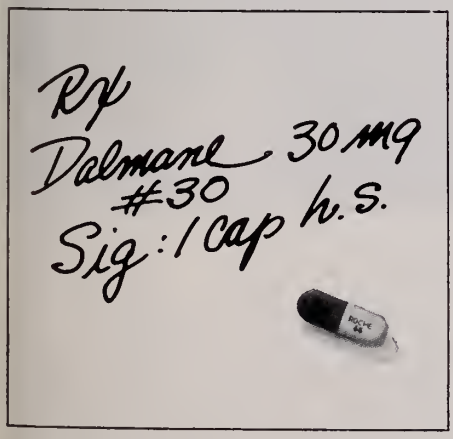
Dalmane was also preferred to cer in hypnotics in two separate preferere studies. In each of two double-blin studies, Dalmane 30 mg retained effectiveness for the total period of seven consecutive treatment night according to subjective/objective evaluations.

In summary, Dalmane is useful in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening. It can be used effectively in patients with recurring insomnia or poor sleeping habits, and in acute or chronic medical situations requiring restful sleep.

Dalmane (flurazepam HCl) is generally well tolerated

In most instances in which adverse effects with Dalmane were reported, they were mild, infrequent and seldom required discontinuation of the drug. Dizziness, drowsiness, lightheadedness and the like were the side effects most frequently noted, particularly in elderly or debilitated patients.[3] Instances of hepatic dysfunction, paradoxical reactions (excitement) and hypotension are rare with Dalmane, and morning hang-over is relatively infrequent. In studies to date the effectiveness of Dalmane for recommended periods of use is maintained without need to increase dosage.

References: 1. Kales, A., *et al.:* "Effectiveness of Sleep Medications: All-Night EEG Studies of Hypnotic Drugs," In Proc. 7th Internat. Cong. Electroencephal. and Clin. Neurophysiol., San Diego, Calif., Sept. 13-19, 1969. **2.** Kales, A., *et al.:* "Psychophysiological and Biochemical Changes Following Use and Withdrawal of Hypnotics," in Kales, A. (ed): *Sleep: Physiology and Pathology,* Phila., Lippincott, 1969, p. 331. **3.** Data on file, Medical Department, Hoffmann-La Roche Inc.



For the sleep your patients need

New **Dalmane®**
(flurazepam hydrochloride)

Before prescribing, please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

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Hygroton® chlorthalidone USP *Indications:* Hypertension and many types of edema involving retention of salt and water. *Contraindications:* Hypersensitivity and most cases of severe renal or hepatic diseases. *Warnings:* With the administration of enteric-coated potassium supplements, which should be used only when adequate dietary supplementation is not practical, the possibility of small-bowel lesions (obstruction, hemorrhage, and perforation) should be kept in mind. Surgery for these lesions has been required frequently and deaths have occurred. Discontinue enteric-coated potass m supplements immediately if abdominal pain, distention, nausea, vomiting, or gastrointestinal bleeding occur. Use with caution in pregnant women and nursing mothers since the drug crosses the placental barrier and appears in cord blood and since thiazides appear in breast milk. The drug may result in fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult. When used in women of childbearing age, balance benefits of drug against possible hazards to fetus. *Precautions:* Antihypertensive therapy with this drug should always be initiated cautiously in postsympathectomy patients and in patients receiving ganglionic blocking agents, other potent antihypertensive drugs or curare. Reduce dosage of concomitant antihypertensive agents by at least one-half. Because of the possibility of progression of renal damage, periodic determination of the BUN is indicated. Discontinue if the BUN rises or liver dysfunction is aggravated. Hepatic coma may be precipitated. Electrolyte imbalance, sodium and/or potassium depletion may occur. If potassium depletion should occur during therapy, the drug should be discontinued and potassium supplements given, provided the patient does not have marked oliguria. Take special care in cirrhosis or severe ischemic heart disease and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended. *Adverse Reactions:* Nausea, gastric irritation, vomiting, anorexia, constipation and cramping, dizziness, weakness, restlessness, hyperglycemia, glycosuria, hyperuricemia, headache, muscle cramps, orthostati hypotension, which may be potentiated when chlorthalidone is combined with barbiturates, narcotics or alcohol, aplastic anemia, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin rashes, urticaria, purpura, necrotizing angiitis, acute gout, and pancreatitis when epigastric pain or unexplained G.I. symptoms develop after prolonged administration. Other reactions reported with this class of compounds include: jaundice, xanthopsia, paresthesia, and photosensitization. *Average Dosage:* 50 or 100 mg. with breakfast daily or 100 mg. every othe day. *How Supplied:* White, single-scored tablets of 100 mg. and aqua tablets of 50 mg., in bottles of 100 and 1000. (B)46-230-G *For full details, please see the complete prescribing information.*

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JULY, 1971 • VOLUME 58 • NUMBER 7

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JULY COVER—This painting by Mrs. Mahon Myers of Tampa won the Editor's Award at the 97th Annual Meeting.



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President's Page



Wanted–Direction and a Plan

On a national level, and particularly in Washington, everyone is suddenly worrying about health care; but so far a national plan for good health care is lacking.

We have the Nixon Administration proposal; the Kennedy-AFL-CIO plan, and the AMA Medicredit plan, but nowhere in these bills and proposals is there any clear mandate to establish and implement a coordinated health system. To my notion, HEW, who should be studying this tremendous problem, has not offered any recommendation, and worse yet—does not seem to have a leader who can give direction or guidance. Actually, it is impossible in the federal health hierarchy to get an answer to the question, "Who's in charge?"

Strangely enough, there is less than 18 million for research on ways to improve health service delivery, whereas 1.6 billion was spent by the government for biomedical research in 1968. In the meantime, it seems that there will be mainly politically-colored debates and procedures, (witness the Kennedy Health Subcommittee hearings) and recriminations as the country moves toward what every health insuring nation so far has found to be an increasingly expensive, if necessary social burden. The physicians, along with everyone, will be caught in a tangled web which will be quite rigid and may very well be permanent in its form.

Why not have an expertly drawn plan which then could be subjected to political process? I'm the first to admit that in this country we need no new commissions as a substitute for action, but in this case there is now agreement among Republicans and Democrats that health reform and health insurance are desperately needed.

With this as a background, I submitted the following resolution to our delegates to the A.M.A.:

Whereas, The Nixon Administration and Congress are determined to pass legislation for some form of nationwide health insurance, and since none of the plans submitted so far have received universal endorsement; and

Whereas, Both Medicare and Medicaid have proven very expensive and unmanageable and the administration is only now thinking of improved delivery systems; and

Whereas, At the heart of all this disarray there is a total lack of regular, long range, expert health planning; therefore be it

RESOLVED, That the American Medical Association petition both President Nixon and Congress to:

1) Agree on the goals of a realistic medical care and health reform for all;
2) Name a commission to propose a step-by-step plan to implement these goals; and
3) Act on this commission's report without political interference.

J. K. Hunt M.D.

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10:30 p.m. To bed with tablets or suspension. Either dosage form of Gantanol® (sulfamethoxazole) provides reliable therapy for nonobstructed cystitis.

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In addition, Gantanol diffuses readily into interstitial fluids for antibacterial activity at the foci of the infection.



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Indications: Effective in acute, recurrent or chronic urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli, Klebsiella-Aerobacter, Staphylococcus aureus, Proteus mirabilis,* and, less frequently, *Proteus vulgaris*) and in the absence of obstructive uropathy or foreign bodies. *Note:* Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response. Add aminobenzoic acid to culture media of patients receiving sulfonamides. Resistant organisms present a current problem to the usefulness of antibacterial agents. Blood levels should be measured in patients receiving sulfonamides for serious infections, since there may be wide variations with identical doses; 20 mg/100 ml should be the maximum total sulfonamide level, as adverse reactions occur more frequently above this level.

Contraindications: Sulfonamide hypersensitivity; infants less than 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis); pregnancy at term; during nursing period.

Warnings: Safe use in pregnancy has not been established, and teratogenicity potential has not been thoroughly investigated. Sulfonamides will not eradicate or prevent sequelae to group A streptococcal infections, *i.e.*, rheumatic fever, glomerulonephritis. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported; early clinical signs such as sore throat, fever, pallor, purpura or jaundice may indicate serious blood disorders. Complete blood counts and urinalysis with careful microscopic examination are recommended frequently during sulfonamide therapy. Clinical data are insufficient for prolonged or recurrent therapy in chronic renal disease in children under 6 years.

Precautions: Use with caution in patients with impaired renal or hepatic function, severe allergy, bronchial asthma and in glucose-6-phosphate dehydrogenase-deficient



4:30 a.m. Effective through the night. Each dose of Gantanol (sulfamethoxazole) delivers up to 12 hours of antibacterial action against susceptible
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(sulfamethoxazole)

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12 hours of therapy with every dose

In the latter, dose-related hemolysis may occur. n adequate fluid intake to prevent crystalluria and rmation.

verse Reactions: *Blood dyscrasias:* agranulocytosis, anemia, thrombocytopenia, leukopenia, hemolytic , purpura, hypoprothrombinemia and methemoglobi- *allergic reactions:* erythema multiforme (Stevens- syndrome), skin eruptions, epidermal necrolysis, a, serum sickness, pruritus, exfoliative dermatitis, lactoid reactions, periorbital edema, conjunctival and injection, photosensitization, arthralgia and allergic ditis; *gastrointestinal reactions:* nausea, emesis, ab- pains, hepatitis, diarrhea, anorexia, pancreatitis and itis; *C.N.S. reactions:* headache, peripheral neuritis, depression, convulsions, ataxia, hallucinations, tin- vertigo and insomnia; and *miscellaneous reactions:* ever, chills, toxic nephrosis with oliguria and anuria, eritis nodosa and L.E. phenomenon. Due to certain al similarities with some goitrogens, diuretics (acetazolamide and thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age, except adjunctively with pyrimethamine in congenital toxoplasmosis. Usual dosage is as follows:

Adults—2 Gm (4 tabs or teasp.) initially, then 1 Gm *b.i.d.* or *t.i.d.* depending on severity of infection. *Children*—0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially, followed by 0.25 Gm/20 lbs *b.i.d.* Maximum dose for children should not exceed 75 mg/kg/24 hrs.

Supplied: Each tablet or teaspoonful (5 ml) of suspension contains 0.5 Gm sulfamethoxazole.

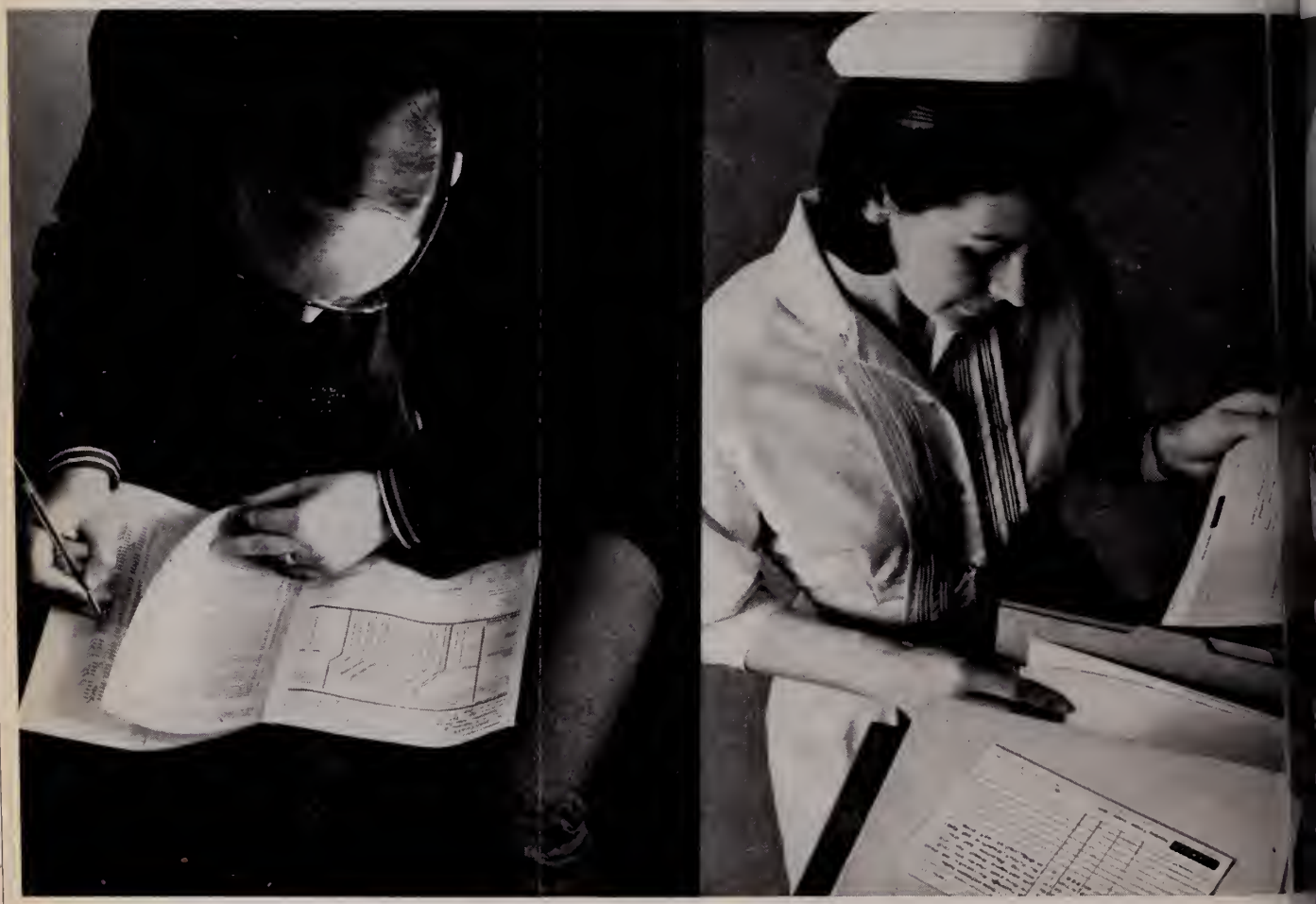
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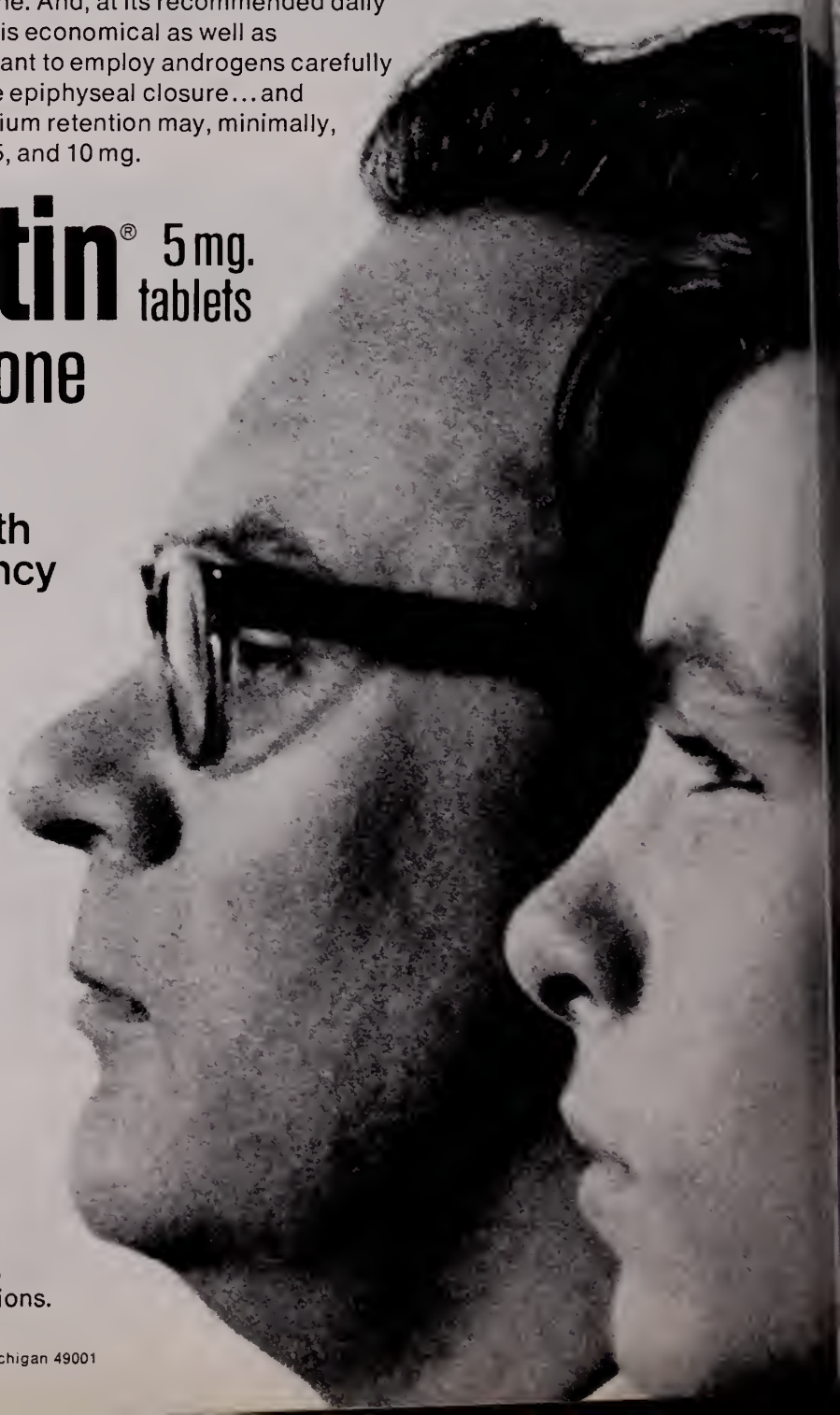
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hormone deficiency states. Prevents atro-
the accessory male sex organs following
ion for as long as therapy is continued.
nce and male climacteric symptoms when
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d eunuchism. Delayed puberty when es-
ed as not a simple familial trait. Indicated
se symptoms of panhypopituitarism re-
o hypogonadism, however, appropriate
cortical and thyroid hormone replace-
therapy remain of primary importance.
: Palliation of androgen-responsive, ad-
, inoperable breast cancer in women be-
and 5 years postmenopausal or women
m castration has shown the tumor to be
e dependent. Prevention of postpartum
manifestations of pain and engorgement;
s no satisfactory evidence that this drug
ts or suppresses lactation per se. In os-
sis androgens may be of adjunctive
to adequate considerations of diet, cal-
alance, physiotherapy and general health
ing measures. *Males and Females:* In the
ent of protein depletion states which oc-
geriatric patients, in debilitation states, in
c corticoid therapy, resistant fractures;
chidism; creating a positive nitrogen bal-
tissue repair and other anabolic effects.
genic steroids may produce a response in
c anemias, myelofibrosis, myelosclerosis,
enic myeloid metaplasia and hypoplastic
as due to malignancy or myelotoxic drugs.
gens are not of value in other anemias.

indications Pregnancy (may virilize fe-
etus), mammary carcinoma in the male,
tic carcinoma, severe liver disease, severe
renal disease and severe persistent hy-
cemia.

utions Employ with caution in young boys
oid precocious sexual development and
ture epiphyseal closure. Androgens tend
mote retention of sodium and water, there-
atch for edema—particularly in the elderly.
nce and severity of edema have been
al and have been associated only with
doses used for palliation of breast cancer.
calcemia may occur, particularly in patients
metastatic breast carcinoma; if this occurs
rug should be discontinued. Changes in
unction tests, such as increased BSP re-
n and SGOT levels, can occur during ther-
aundice has been rarely reported. If liver
on tests are altered, discontinue medica-
r reduce dose. Priapism is indicative of
sive dosage and is indication for tempo-
withdrawal of drug. When treating protein
tion states or osteoporosis, an adequate
hould be provided and prolonged immobili-
avoided whenever possible. When treating
tic or hypoplastic anemias, androgen ther-
hould not replace other measure such as
usion, correction of iron deficiency, anti-
rial therapy, and the use of corticosteroids.

rse reactions Nausea, dyspepsia, men-
irregularities, hepatic dysfunction, pria-
edema, precocious sexual development,
premature epiphyseal closure in young
nts have been reported. *Male*—Prolonged
nistration or excessive dose may cause
ition of testicular function with oligospermia
decreased ejaculation volume. *Female*—
doses or prolonged administration may
uce masculinization with signs such as hir-
n, deepening of the voice, enlargement of
clitoris, acne, and sometimes, increased
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Precautions: Sensitization may occur with prolonged use and is more likely to develop in eczematous otitis externa. To minimize such reactions (a) limit application to a week or less, and (b) avoid use of excessive amounts which may run down the face.

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Sustained Action
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Sustained Action (pentaerythritol tetranitrate) 80 mg

Indications: PERITRATE SA Sustained Action (pentaerythritol tetranitrate) 80 mg is indicated for the relief of angina pectoris (pain associated with coronary artery disease). It is not intended to abort the acute anginal episode but is widely regarded as useful in the prophylactic treatment of angina pectoris.
Contraindications: PERITRATE SA Sustained Action (pentaerythritol tetranitrate) 80 mg is contraindicated in patients who have a history of sensitivity to the drug.
Warning: Data supporting the use of PERITRATE (pentaerythritol tetranitrate) during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety. This drug can act as a physiological antagonist to norepinephrine, acetylcholine, histamine, and many other agents.
Precautions: Should be used with caution in patients who have glaucoma. Tolerance to this drug, and cross-tolerance to other nitrites and nitrates may occur.
Adverse Reactions: Side effects reported to date have been predominantly related to rash (which requires discontinuation of medication) and headache and gastrointestinal distress, which are usually mild and transient with continuation of medication. In some cases severe persistent headaches may occur. In addition, the following adverse reactions to nitrates such as pentaerythritol tetranitrate have been reported in the literature: (a) Cutaneous vasodilatation with flushing. (b) Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop. (c) An occasional individual exhibits marked sensitivity to the hypotensive effects of nitrite and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration and collapse) can occur, even with the usual therapeutic doses. Alcohol may enhance this effect.
Dosage: PERITRATE SA Sustained Action (pentaerythritol tetranitrate) 80 mg (b.i.d. on an empty stomach), 1 tablet immediately on arising and 1 tablet 12 hours later.
Supplied: PERITRATE SA Sustained Action (pentaerythritol tetranitrate) 80 mg, bottles of 100 and 1000 tablets.
Additional Dosage Forms: PERITRATE (pentaerythritol tetranitrate) 10 mg and 20 mg tablets with or without phenobarbital 15 mg, bottles of 100 and 1000 tablets. PERITRATE with Phenobarbital SA Sustained Action—pentaerythritol tetranitrate 80 mg and phenobarbital 45 mg, bottles of 100 and 1000 tablets.
Warning: Tablets containing phenobarbital may be habit forming. PERITRATE with Nitroglycerin—pentaerythritol tetranitrate 10 mg with nitroglycerin 0.3 mg, bottles of 50 tablets.

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Thereafter	Continue effective DBI-TD dosage.

To transfer from sulfonylurea therapy to DBI-TD alone: The first week, withdraw sulfonylurea; start with DBI-TD as indicated in the chart.

To transfer from sulfonylurea therapy to combined therapy with DBI-TD: The first week, continue dosage of sulfonylurea; add DBI-TD as indicated in the chart. When effective regulation of diabetes is attained, sulfonylurea may be reduced and/or withdrawn.

dications: Stable adult diabetes mellitus; sulfonylurea failes, primary and secondary. **Contraindications:** Diabetes melus that can be regulated by diet alone; juvenile diabetes that uncomplicated and well regulated on insulin; acute complitions of diabetes (metabolic acidosis, coma, infection, gaene); surgery; severe hepatic disease; renal disease with emia; cardiovascular collapse, after disease states associated ith hypoxemia. **Warning:** Use during pregnancy is to be avoided. ntil adequate data on the effects of DBI on the human fetus e available, such use can be considered experimental. **Preautions: Starvation Ketosis,** which must be differentiated om "insulin lack" ketosis, and is characterized by ketonuria spite of relatively normal blood and urine sugar, may result om excessive DBI therapy, excessive insulin reduction or sufficient carbohydrate intake. Adjustment of DBI-TD or insulin dosage, or supplying carbohydrates, alleviates this tate. DO NOT GIVE INSULIN WITHOUT FIRST CHECKING LOOD AND URINE SUGARS. **Lactic Acidosis:** DBI is not recmmended in the presence of azotemia or in any clinical situaon that predisposes to sustained hypotension that could lead lactic acidosis. To differentiate lactic acidosis from ketoacidois, it is recommended that periodic determinations of ketones in the blood and urine be made in diabetics previously stabilized on DBI, or DBI and insulin, who have become unstable. If electrolyte imbalance is suspected, periodic determinations should also be made of electrolytes, pH and the lactate-pyruvate ratio. DBI should be withdrawn and insulin, when required, and other corrective measures instituted immediately upon the appearance of any metabolic acidosis. **Hypoglycemia:** Although hypoglycemic reactions are rare when DBI is used alone, every precaution should be observed during the dosage adjustment period particularly when insulin or a sulfonylurea has been given in combination with DBI. **Adverse Reactions:** Principally gastrointestinal, occurring more often at higher dosage levels; unpleasant metallic taste, continuing to anorexia, nausea and, less frequently, vomiting and diarrhea. Reduce dosage at first sign of these symptoms. In case of vomiting, DBI should be immediately withdrawn. Although rare, urticaria and gastrointestinal symptoms following excessive alcohol intake have been reported. **Dosage:** 1 to 3 DBI-TD 50 mg. capsules daily. **FSN 6505-724-6331. Also Available:** DBI tablets 25 mg. **Supplied:** Bottles of 100 and 1000.

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PROCEEDINGS

Ninety-Seventh Annual Meeting
Florida Medical Association., Inc.
Miami Beach, May 5-9, 1971

President's Address

James T. Cook, M.D.

Mr. Speaker, Members of the House of Delegates, distinguished guests—the temptation is strong to thoroughly summarize the actions of the FMA during the past year; however, as Henry Babers told you last year, this would be kind of futile since all of it is in the Board of Governors' report in your handbook. Although this handbook can only be thought of as a brief summary, it represents hundreds of hours of work by many dedicated members of FMA. By my count, the Board of Governors has spent about 55 hours in actual session. Some decisions may be wrong, but mighty few are hastily conceived.

At the beginning of this year as President, I had no single overwhelming objective which I can present now to you as a fait accompli at this, the end of my presidential year. In fact, in some ways I sort of felt like I did in World War II. In spite of being a married man, I was anxious to get overseas—thrilled when we embarked for the Normandy beachhead, but after a few hours there, all I wanted was to get out of it alive—and soon. Being President of FMA has been quite similar. Henry Babers told you last year that one of his main objectives was to strengthen our administrative staff. I was aware of his plans, and most of them have reached fruition this year. Our administrative staff is larger, increasing in competence, and one of the best in the United States.

You know, following Dr. Babers as President has been a real tough job—sort of like following Sir Galahad; his strength was as the strength of ten, because his heart was pure.

I have made an earnest and, to some extent, successful effort to increase the rapport between FMA and our Auxiliary—the Woman's Auxiliary to the FMA. I feel now that the ladies, or at least their officers, know more about what the FMA is doing than has ever been true before. Mrs. Spanjers was a delightful addition to our fall meeting of the Board of Governors. We truly appreciate our ladies and their efforts to help us—and goodness knows, we need help.

Another big item that has been partially completed has been a new fee schedule for Workmen's Compensation. I know as well as anyone that the new schedule isn't perfect, and, as you know, we're appealing some of the fees already; but, by and large, we got a pretty fair shake and it will improve. I received a lot of critical letters, petitions, circulars and what have you about how we should proceed now—a good many of which recommended immediate court action. There were very, very good reasons why we didn't go to court and in the privacy of the Reference Committee, Dr. Joe Matthews or I will be glad to tell you why.

Of course, the big thing that bugs me and you is federal medicine—Medicare, Medicaid, and now whatever our Congress sees fit to impose on us. I



Dr. James T. Cook delivers his President's Address to the House of Delegates.

am just as aware of the problems as you are and the answers will not come easily, but at least we're all aware—not like the two middle aged ladies discussing the no-sex method of disciplining their husbands: One told the other the only trouble was that she had to inform her husband she was withholding her favors—he hadn't noticed.

I don't have the answers to all of this—but we've noticed; we can listen to and accept advice. But in my opinion there's one thing that can help, and help a lot. Carefully select and then follow your leaders, and follow them even if they're not the ones you voted for.

As a case in point: Most of you know that Medicaid is now paying 15 per cent of the 75th percentile. By inadequate appropriation the state is setting extremely low fees for doctors and I personally believe there will be little if any improvement in the next fiscal year.

Antitrust laws might possibly prevent your Board from recommending that we refuse to accept Medicaid but there are comments concerning Medicaid in the handbook which should help you arrive at an intelligent decision. My personal opinion is that when we accept an inadequate fee, due to governmental actions, we are tacitly setting the pattern for the government to set our fees at the level it desires. This applies to Medicare, Medicaid, and any other third party system of payment.

Finally, it has become traditional for a President to thank Harold Parham. Harold is a dedicated, hard working, competent Executive Vice President. There is no better and I appreciate him more than I can tell you.

I wish time allowed me to thank individually all the committee chairmen and the devoted members of our Board of Governors, but I'd leave out some names, so I thank them en masse. They all know what they have done and that should be enough.

When this President thing came along, I had to talk to my own small hospital staff. All of us hate emergency room duty, but this job made it impossible for me to take my share. At no financial gain, and certainly with no gain in prestige, this generous group has taken over my call duties for three years. No group could be more generous. So I'd like to get it on the record that I am sincerely grateful to the staff of Jackson Hospital in Marianna.

The other night I heard Tennessee Ernie Ford tell about the middle-aged couple on their 30th wedding anniversary. In a romantic vein, they returned to the hotel where they had spent their first night together. They rented the same room; ate at the same restaurant, and returned to bed. Nothing much was happening, so the ex-bride said, "Honey, do you remember what you did to me in this room thirty years ago?" "What?" "Well, first you put your arm around me and squeezed me tight." So he did. And another pause ensued. She said, "Honey, do you remember what we did next?" "What?" "You kissed me." So he kissed her tenderly, and there was another strained silence. She said "Honey, do you remember what you did next?" "What?" "You bit my ear." So he laboriously began to clamber out of bed. "Honey, where in the world are you going?" "I'm going to get my teeth!"

And that reminds me to salute my wife, Lillian, who has been a patient person this year, to put it mildly.

Now, gentlemen, you'll have many better presidents, but you'll never have one that loves the FMA more, or appreciates more the honor of having been your President.

General Session

The General Session of the 97th Annual Meeting of the Florida Medical Association was called to order at 11:00 a.m. on Friday, May 7, 1971, in the Medallion Room of the Americana Hotel, Bal Harbour, Florida, by President James T. Cook, M.D.

Dr. Cook announced the winners of the awards for scientific exhibits.

1971 SCIENTIFIC EXHIBIT AWARDS

First Place: Morton B. Weinstein, M.D. and August Miale, M.D., Miami: "Tumor Localization with Radionuclides"

Second Place: C. A. Castillo, M.D., J. G. Chesney, M.D., T. O. Gentsch, M.D., A. J. Gosselin, M.D., P. B. Larsen, M.D., T. J. Noto Jr., M.D. and E. A. Traad, M.D., Miami; "Current Concepts in the Management of Coronary Artery Disease"

Third Place: John W. Snow, M.D., Ronald M. Rhatigan, M.D., M. Cecil Johnson, M.D. and Lewis J. Obi, M.D., Jacksonville: "Permanent Preservation of Anatomic Specimens"

Honorable Mention: Paul D. Willis, M.D., Jacksonville: "Selective Visceral Angiography for Localization of Gastrointestinal Bleeding Sites" and Ernest A. Traad, M.D., Thomas O. Gentsch, M.D., Harold Spear, M.D., Parry B. Larsen, M.D., DeWitt Daughtry, M.D., John J. Chesney, M.D., and Chang U. Wu, M.D., Miami: "Aneurysmal Lesions: Natural History and Surgical Management"

Dr. Cook introduced the panel of members who would present informational discussions of current socioeconomic and medical economic topics:

James B. Byrne, M.D., Chairman, FMA Committee on Peer Medical Utilization Review, "Peer Medical Utilization Review."

James L. Borland Jr., M.D., Chairman, Board of Trustees, Foundation for Medical Care in Duval County, Inc., "Foundations for Medical Care."

Joseph C. Von Thron, M.D., Chairman, Council on Legislation and Public Agencies, "Medicredit; National Health Insurance and Health Maintenance Organizations."

Joseph G. Matthews, M.D., Chairman, FMA Ad Hoc Committee on Workmen's Compensation, and Chairman, Council on Speciality Medicine, "Workmen's Compensation."

Dr. Von Thron reviewed the various proposals for national health insurance. He called the members' attention to the Medicredit booklet which had been distributed to all delegates explaining Medicredit and its provisions. He also reviewed the estimated costs of each proposal and the methods of financing.

Dr. Byrne discussed the many changes in medicine which have been brought about by Medicare and the peer review activities in Florida.

He reviewed the findings of the peer review committees thus far, and discussed the educational value of these findings. He expressed the hope that organized medicine will prove it is willing and able to do the job and pointed out that all the pending health legislation in Congress provides for peer review.

Dr. Borland presented the background of the "foundation for medical care" concept, from its beginning some 15 years ago in California. He listed several compelling reasons for starting local foundations including the need to improve quality, efficiency and delivery of health care; the need to hold costs at reasonable levels; and the need to preserve the private enterprise system of medical practice. He stated that while it is obvious that some new approach to health care will be developed, the government is yet undecided about what shape this system will take. There needs to be some kind of insurance concept and it is desirable that local control and a fee-for-service system be maintained. He explained the mechanics of the recently established Duval County Foundation for Medical Care and how it would provide the needed medical care to the community.

Dr. Matthews sketched the background of the Workmen's Compensation Fee Schedule telling of the series of petitions filed by the Association and hearings granted by the Commission since February 1969. He said that with each hearing, and subsequent administrative order, some progress was made. But, he said, at the present time the Division of Labor is still not obeying the law in regard to medical fees. He described in some detail the objectionable items in the schedule, and the methods which had been used by Association representatives to have them corrected, as well as the obstacles which had been encountered.

A question and answer period followed the presentations.

The President adjourned the General Session at 11:50 a.m.

First House of Delegates

The House of Delegates of the Florida Medical Association convened at 4:00 p.m. on Wednesday, May 5, 1971, in the Bal Masque Room of the Americana Hotel, Bal Harbour, Florida, with Dr. Charles K. Donegan, Speaker of the House, presiding.

The invocation was pronounced by Dr. Warren W. Quillian, Past President, of Coral Gables.

"Lord, we thank Thee for this Annual Session of our Association; and for the opportunity to discuss with each other some of the problems related to medical care and the delivery of health services. Give us good judgment, supported by sound principles that are socially right and economically strong. Guide our deliberations and decisions as we attempt to meet the needs of the present and future. Discourage within us any feeling of complacency concerning past accomplishments; and imbue us with the strength and courage necessary to meet the challenges presented for our consideration and study now. We are grateful to Thee for Thy blessings in our progress thus far. Help us to strengthen our organization of community service in a manner which will justify the faith and confidence of those with whom we deal.

"These things we ask in Thy name. Amen."

The House stood for the singing of "God Bless America" and the National Anthem.

The Speaker announced the membership of the Credentials Committee: Drs. Joseph P. Hendrix, Chairman, N. Frank Fain, Richard B. Moore, and Jim C. Hirschman.

The chairman of the Credentials Committee, Dr. Hendrix, reported a quorum of 160 delegates present out of a possible 204, representing a majority of the delegates and a majority of the component medical societies, and moved that the delegates be seated. The motion carried.

Delegates

ALACHUA—John W. Andrews, Billy Brashear, William C. Ruffin Jr., George T. Singleton (Absent—Walter E. Murphree).

BAY—William D. Carter, William C. Roberts.

BREVARD—N. Frank Fain Jr., T. John Kaminski, Joseph C. Von Thron (Absent—John Blackburn).

BROWARD—Robert L. Andreae, Miles J. Bielek, Robert J. Brennan, Russell B. Carson, Milton P. Caster, Paul E. Gutman, J. Gordon McAllister, John H. Mickley, Ray E. Murphy, W. Dotson Wells, John I. Williams (Absent—Leonard A. Erdman, David C. Lane, Lees M. Schadel).

CHARLOTTE—(Absent—Carl N. Reilly).

CLAY—William A. Mulford.

COLLIER—Fred A. Butler, Nicholas Kalvin.

COLUMBIA—Frank Adel.

DADE—Jerome Benson, Rufus K. Broadaway, Manu Carbonell, Richard C. Clay, Francis Cooke, Vince P. Corso, DeWitt C. Daughtry, Joseph Fitzgeral Marshall Hall, Henry Hardin, James J. Hutson, Walte Jones III, Ronald Mann, Donald Marion, O. Ildefons Mas, Charles Monnin, Sheldon Munach, Jean J. Per due, M. Murray Schechter, Daniel Seckinger, Everet Shocket, Mario Stone, William Straight, Maynar Taylor, Arthur W. Wood Jr., Nelson Zivitz (Absent— James L. Anderson, David Becker, Morris Blau Harvey Brown, Edward Cullipher, Joseph Davis Robert F. Dickey, Miguel Figueroa, M. Eugene Flipse Jim C. Hirschman, Paul Jarrett, James R. Jude, John Liebler, Paul Mayer, Chauncey Stone, Charles F. Tate Scheffel Wright).

DESOTO-HARDEE-GLADES—Calvin W. Martin.

DUVAL—Clyde M. Collins, Stephen P. Gyland, Karl B Hanson, L. E. Masters, Thad Moseley, D. Darrell Phillips, Harry W. Reinstine Jr., John A. Rush Jr., Guy T. Selander (Absent—John J. Fisher, M. Harlan Johnston, A. H. Wilkinson Jr.).

ESCAMBIA—Charles J. Kahn, T. J. Marshall, Philip B. Phillips, Lockland V. Tyler Jr.

FRANKLIN-GULF—Joseph P. Hendrix.

HIGHLANDS—Donald Hartwell.

HILLSBOROUGH—Richard H. Blank, Ernest R. Bourkard, Frank C. Coleman, Richard G. Connar, Irving M. Essrig, John C. Fletcher, Victor H. Knight, W. Mahon Myers, William W. Trice (Absent—Richard S. Hodes).

INDIAN RIVER—(Absent—J. C. Robertson).

LAKE—J. Basil Hall, Thomas H. Nichols.

LEE-HENDRY—Larry Garrett, F. Lee Howington, Edward Salko.

LEON-WAKULLA-JEFFERSON—E. G. Haskell, Nelson H. Kraeft, Robert N. Webster.

MADISON—(Absent—William J. Bibb).

MANATEE—(Absent—Irving E. Hall Jr., Roger A. Meyer).

MARION—Henry L. Harrell, C. Brooks Henderson.

MONROE—Jaime M. Benavides.

NASSAU—Marshall Groover.

OKALOOSA—W. W. Thompson.

ORANGE—Louis P. Brady, Norman F. Coulter, Paul C. Harding, Harold W. Johnston, Franklin B. McKechnie, Louis C. Murray, Edward W. Stoner, Thomas B. Thames (Absent—Axel W. Anderson III, Truett H. Frazier).

PALM BEACH—W. F. Ande, Carl E. Andrews, Vernon B. Astler, Jerry F. Cox, Maximilian A. Crispin, James R. Forlaw, Bernard Kimmel, R. B. Moore Jr., H. John Richmond.

PANHANDLE—H. E. Brooks.

PASCO-HERNANDO-CITRUS—Randall Jenkins.

PINELLAS—Joseph A. Ezzo, James C. Fleming, Allyn B. Giffin, David S. Hubbell, Jack A. MaCris, Donald G. Nikolaus, David T. Overbey Jr., Thomas M. Quehl, George H. Welch Jr., Walter H. Winchester, Rowland E. Wood.

POLK—James R. Boulware III, Thomas M. Caswall, J. Gerard Converse, John W. Glotfelty, Robert J. Pfaff, Angelo P. Spoto.

PUTNAM—(Absent—Roy E. Campbell).

ST. JOHNS—W. W. O'Connell.

ST. LUCIE-OKEECHOBEE-MARTIN—Howard C. McDermid (Absent—John M. Gunsolus).

SANTA ROSA—(Absent—Claude J. Barnes).

SARASOTA—Samuel E. Kaplan, Karl R. Rolls, Millard B. White (Absent—Franklin H. Pfeiffenberger).

SEMINOLE—Luis M. Perez.

SUWANNEE-HAMILTON-LAFAYETTE — (Absent— Wilton Kane).

'AYLOR—Frank Scarvey III.
'OLUSIA—Bob Bullwinkel, William Eyster, W. H. Harrison, R. W. Snodgrass.
VALTON—(Absent—Thomas G. Spence).
:OUNCIL ON SPECIALTY MEDICINE—Frederick C. Andrews, James D. Beeson, Jack H. Bowen, Andre S. Capi, James W. Clower Jr., Samuel G. Hibbs, Sanford A. Mullen, Robert E. Raborn, James M. Stem, Edward J. Sullivan Jr., Miles W. Thomley (Absent—West Bitzer, John M. Hamilton, William T. Mixson, Richard P. Thompson).
)FFICERS AND BOARD OF GOVERNORS—Henry J. Babers Jr., Jack Q. Cleveland, James T. Cook, James F. Cooney, William J. Dean, Richa:d C. Dever, Charles K. Donegan, Richard M. Fleming, Francis T. Holland, Floyd K. Hurt, Joseph G. Matthews, Eugene G. Peek Jr., James W. Walker, William M. C. Wilhoit (Absent—Franklin J. Evans).

Upon motion duly carried, the Rules and Order of Business of the House were adopted as follows:

Information for Delegates

The Rules and Order of Business for the House of Delegates is included in this Handbook.

Delegates and alternates whose names appear in this Handbook have been certified by their county medical societies. Our By-laws do not permit an alternate to serve for a delegate who has once been seated. The By-laws require that delegates fill out attendance cards at each meeting of the House of Delegates in order to be credited in attendance, and further, the Chairman of the Credentials Committee is required to report to the House the number of delegates who have registered their attendance cards, thus eliminating the necessity of a roll call to seat delegates.

Reports and resolutions that were received before going to press are included in this Handbook. Delegates are urged to study them carefully before they are introduced in the House. Whenever possible, it is requested that resolutions and supplemental reports be forwarded to the Association's executive office by April 26 for duplication and distribution to the delegates.

All reports and resolutions will be referred to Reference Committees by the Speaker at the First Meeting of the House of Delegates. All members who are interested in any committee report or resolution should attend the Reference Committee meetings where a full discussion will take place. Council and committee chairmen are respectfully requested to be present and discuss their respective reports. All members of Reference Committees are urged to study carefully the reports and resolutions referred to them. The chief purpose of the Reference Committees is to allow an opportunity for as many members of the Florida Medical Association as possible to appear and be heard and thus have a voice in the business of the Association. In addition, discussions before the Reference Committees have the added advantage of avoiding long discussions at the meetings of the House of Delegates. Members may request the Reference Committee chairman to defer items in which they are interested in order that they may be present to discuss the subject.

A resolution before the Reference Committee must have a sponsor present before the Reference Committee. All resolutions must be filed by 12:00 noon on the day of the First Meeting of the House of Delegates, typewritten and in proper form. The resolutions so presented will be duplicated and available at the Reference Committee meetings when they convene. Your attention is called to the format of the annual meeting, where the Reference Committee meetings will be held in the morning following the First Meeting of the House.

We also plan to have all Reference Committee reports duplicated and available to the delegates at the Registration Desk on the morning of the day the Second House of Delegates meets in the afternoon. We trust these provisions will result in an efficient and informed House of Delegates.

All reports and resolutions included in this Handbook, as well as those which will be in the Delegates' Packets and the reports of the Reference Committees, have been color coded for easy reference. This color code is as follows:

Reference Committee No. I —Green
Reference Committee No. II —Buff
Reference Committee No. III—Blue
Reference Committee No. IV—Pink
Reference Committee No. V —Goldenrod

According to our By-laws, nomination and seconding speeches shall be limited to a maximum of two minutes each. If additional information needs to be presented to the House, it should be duplicated and distributed to members of the House.

Your Speaker and Vice Speaker are available at any time to help in any way in the preparation of resolutions or in any capacity in which they might help any member of the Florida Medical Association.

Charles K. Donegan, Speaker,
House of Delegates
Franklin J. Evans, Vice Speaker,
House of Delegates

A correction was made in the Proceedings of the 1970 House of Delegates, as published in the July 1970 issue of the *Journal of the Florida Medical Association.* In the Second House of



House of Delegates in session. (From left) Dr. Henry J. Babers, Immediate Past President; Dr. Floyd K. Hurt, President-Elect; Dr. James T. Cook, President; Dr. Charles K. Donegan, Speaker of the House; Mr. W. Harold Parham, Executive Vice President; Dr. James W. Walker, Secretary-Treasurer; Dr. Richard C. Dever, Vice President and Wanda Bain, recording secretary.

Delegates, report of the Florida Medical Foundation, page 56, second column, objectives of the Foundation, item number 5 was deleted, as it had been included in the report in error.

A motion carried to approve the minutes of the 1970 House of Delegates as corrected.

The Speaker introduced the officers of the Association: Drs. James T. Cook, President; Floyd K. Hurt, President-Elect; Henry J. Babers Jr., Immediate Past President; Richard C. Dever, Vice President; James W. Walker, Secretary-Treasurer; and Mr. W. Harold Parham, Executive Vice President. Dr. Franklin J. Evans, Vice Speaker, was not present, and the Speaker read to the House his letter advising of his absence.

April 29, 1971

W. Harold Parham, Executive Vice President
Florida Medical Association
P. O. Box 2411
Jacksonville, Florida 32203

Dear Harold:

I am very distraught and upset over the fact that I will be unable to attend the annual meeting of tbe FMA next week at the Americana Hotel. I bave bad tbe misfortune of discovering a lesion in my ascending colon and am being admitted to Doctors' Hospital for surgical exploration on Sunday.

This will be the first meeting I will have missed in many years and feel very sad about it as I've always looked forward to them. I also regret that I will not be there to assist Dr. Donegan in bis duties as Speaker. However, I'm sure he will carry on most competently after tbe experience be bas gained in tbe past few years.

I'm sure tbis will be an exciting meeting and I hope it will be a most successful one.

Yours very truly,
Franklin J. Evans, M.D.

cc: Dr. James T. Cook, Pres.
Dr. Cbarles K. Donegan, Speaker of tbe House
Mr. M. John Hanni

The House unanimously instructed the Secretary to extend to the Vice Speaker the greetings of the House and wish him a speedy recovery.

(Note: Upon tbis instruction the following message was sent along with flowers to Dr. Evans.)

May 5, 1971

Dear Franklin:

The House of Delegates, now in session, was saddened by tbe news of your illness. You will be missed by all. We wish you God's speed in returning to good bealth and shall look forward to having you witb us again next year.

Sincerely,
James W. Walker, M.D., Secretary,
for tbe Florida Medical Association

The Speaker then instructed the House.

Remarks of the Speaker

This is your House of Delegates. We are here today representing 7,000 physicians in the State of Florida. We are bere to make policies for the members of the Florida Medical Association for the coming year.

Tbe House of Delegates transacts business according to a blend of rules imposed by its By-laws, established by tradition, and decreed by its presiding officer. Our By-laws state, and I quote:

"The deliberations of the association shall be governed by parliamentary usage as contained in Sturgis Standard Code of Parliamentary Procedure, unless otherwise provided in the Charter and these By-laws, or unless waived or modified by two-thirds vote of members present at any session of the general membership or meeting of the House of Delegates."

Parliamentary law serves to aid an assembly in orderly, expeditious and equitable accomplishment of its desires. Any compulsive adherence to an inflexible set of directives may thwart rather than abet sucb an objective.

The majority opinion of the House in determining what it wants to do and how it wants to do it sbould always remain the ultimate determinant.

It is the obligation of the Speaker to sense this will of the House, to preside accordingly, and to bold his rulings ever subject to challenge from and reversal by the assemblage.

This year, as last year, there will be three sessions of the House of Delegates. This one; the second meeting on Saturday afternoon at 3:00 p.m. and the third meeting will be Sunday morning at 9:00 a.m.

Let me urge each delegate to conscientiously attend the reference committee meetings—freely express your views and opinions to the reference committees, in order tbat they may make sound recommendations to this House of Delegates.

Further, study the reference committee reports carefully Saturday morning, in order that we can make sound, well thought-out decisions on Saturday afternoon.

The reference committee reports will have eacb line numbered in order to clarify amendments made on tbe floor.

Your Speaker will be available to assist you in every way possible. Thank you.

The Speaker introduced distinguished guests: Mrs. Arnold J. Spanjers, President, and Mrs. Wesley S. Nock, President-Elect, Woman's Auxiliary to the Florida Medical Association; Mrs. Linus W. Hewit, Chairman, Council on Community Health, Woman's Auxiliary to the American Medical Association; Mrs. Abbott Y. Wilcox, President-Elect, Woman's Auxiliary to the Southern Medical Association; and Francis P. Conroy, Esquire, the Association's legal counsel.

Mrs. Spanjers greeted the House of Delegates on behalf of the Auxiliary, and the text of her remarks appears on page 84 of this issue of the *Journal*.

The President, Dr. James T. Cook, introduced Dr. C. A. Hoffman, Secretary-Treasurer of the American Medical Association.

Dr. Hoffman commented on the importance of representation in the AMA's House of Delegates, and complimented the Florida delegation on its work. He commented on the professional liability problems around the country and the activities of the AMA in this area. He stated that it is the hope of the AMA to work in coordination with state programs for professional liability insurance, and to assist those states which have no programs. He was enthusiastic about the prospect for success of these endeavors.

Dr. Cook requested that Dr. Vincent Corso and Dr. Eugene Peek Jr. escort Dr. Luis M. Perez to the podium, and expressed his pleasure upon presenting to Dr. Perez the 1971 A. H. Robins Company Annual Award "For Outstanding Community Service by a Physician."

A. H. Robins Company Award
"FOR OUTSTANDING COMMUNITY SERVICE BY A PHYSICIAN"

Luis Martin Perez, M.D., of Sanford, a tireless crusader against communism and drug abuse, has been selected to receive the 1971 A. H. Robins Company Award for community service by a Florida physician.

The award is presented annually to a member of the Florida Medical Association, Inc., who renders distinguished public service to his community. Dr. Perez was selected by the FMA Board of Governors from among more than a dozen nominations presented by component county medical societies.

Dr. Perez was cited for his continuing fight against communism; his efforts to make members of his community aware of their duties as citizens; his devotion and leadership in the crusade against drug abuse; his work toward a better life for the underprivileged; and his progress toward bridging the generation gap.

Luis Martin Perez, M.D., was born on January 30, 1928, at Camaguey, Cuba, where he later attended primary and secondary schools and the Instituto of Camaguey. He subsequently attended Havana University Medical School where he received his M.D. degree in 1955.

Dr. Perez left Castro's Cuba in the mid-1950's, coming to the United States. He took an internship and a three-year internal medicine residency at Georgia Baptist Hospital in Atlanta.

He came to Florida from Atlanta and was a member of the staff of the Florida State Hospital at Chattahoochee, 1960-1963. During this period he became an American citizen. He moved to Sanford, Florida in 1963 and has been engaged in the private practice of medicine and cardiology ever since.

Since he became a citizen on September 7, 1961, Dr. Perez has given unselfishly of his time, energy and resources to make members of his community aware of their obligations and to make it a better place to live. For years, he has averaged about one speech a week on communism alone before civic, church, PTA, school and other groups in Seminole County and the surrounding area.

Through his continued efforts and attendance at courses in public speaking, Dr. Perez has become an accomplished prize-winning lecturer. In addition to addressing "live" audiences, he has spoken on radio and television.

His dedication to the principles on which this country stands is unquestioned. One year he set up a booth at the Seminole County Fair, where he distributed American flags and copies of the Declaration of Independence, the Pledge of Allegiance and the Bill of Rights.

Concerned about the U.S. Supreme Court decision prohibiting mandatory prayer in the public schools, Dr. Perez was successful in persuading the Seminole County Board of Public Instruction to initiate, as a substitute, classroom readings from the Constitution of the United States and the Declaration of Independence.

The Seminole County internist's efforts also have been focused in the war on drug abuse. He took a week from his practice in 1968, rented films on drug abuse, and toured the Seminole County School System showing the films to parent and student groups. During 1969, he lectured more than 30 times on drug abuse while at the same time keeping up his hectic pace of anticommunism speeches.

Dr. Perez also has given of himself in the cause of better living for the underprivileged and establishing better dialogue and relations between youths and adults.

He organized a committee to form a Boy's Club of America Chapter in Seminole County. Last year, he rented an auditorium at Sanford and began a semimonthly series of "Generation Gap" meetings. These sessions brought adults and youths together in open forum discussions of a wide variety of topics.

Out of these meetings came the idea for a joint adult-youth project known as The Village or Half-Way House. This facility became an information and assistance center for persons tormented by drugs and other personal problems.

Presently the House is open in the evenings, but plans are for it to be staffed on a 24-hour basis. Facilities include a telephone "hotline" answered by adult volunteers.

His profession and his civic activities demand much of his time, but Dr. Perez is also a dedicated family man. His wife, Dr. Maria Pique Perez, is a dermatologist. They have two sons, Luis Martin Perez Jr., and Hector Antonio Perez.

Dr. Perez was instrumental in the formation of the Canaveral Area Heart Association and served as its first president. He is a former president of the Mental Health Association of Seminole County and the Seminole County Medical Society. He also is past chief of medicine at Seminole Memorial Hospital.

He is a member of the Civitan Club of Sanford and serves on that city's Civil Service Board. His memberships include many educational, foreign affairs and public speaking organizations.



Dr. Luis M. Perez accepts the A. H Robins Award "For Outstanding Community Service by a Physician."

Dr. Perez: "You really don't know how much this means to me, as an adopted citizen of this country. This does not really belong only to me —a portion belongs to my wife, another portion belongs to my fellow physicians in Seminole County who covered for me when I was out talking about something that had nothing to do with medicine, and another part belongs to Fidel Castro, because he is the one who taught me the lesson about citizenship and made me realize that I must participate in my country or lose it. Thank you."

Dr. Cook then presented his annual address. (The text of Dr. Cook's address begins on page 21.) The Speaker referred the President's address to Reference Committee No. III for consideration.

The Speaker called attention to the report of the Florida Medical Foundation which is printed in the Handbook for Delegates. The President of the Foundation, Dr. Eugene Peek, advised that he had no additions to make to this report.

The Speaker announced the appointment of delegates to the Reference Committees, who had been appointed by the Speaker in consultation with the President, on the basis of five members for each Reference Committee, one from each of the four medical districts and one from the membership of the House at large. The Speaker also announced assignment of an AMA delegate as advisor to each Reference Committee, and the time and place of the meetings of the Reference Committees on Thursday, May 6:

Reference Committee No. I—Health and Education
9:30 a.m., Ball Room A
William C. Ruffin Jr., *Chairman*
Irving M. Essrig
Charles F. Tate Jr.
Harold W. Johnston
William M. Straight
Jere W. Annis, *AMA Delegate Advisory*

Reference Committee No. II—Public Policy
10:00 a.m., Ball Room B
Norman F. Coulter, *Chairman*
Nelson H. Kraeft
Karl R. Rolls
Miles J. Bielek
DeWitt C. Daughtry
Samuel M. Day, *AMA Delegate Advisory*

Reference Committee No. III—Finance and Administration
10:30 a.m., Eastward Room
Rufus K. Broadaway, *Chairman*
Philip B. Phillips
Thomas M. Caswall
Ray E. Murphy Jr.
Richard G. Connar
Francis T. Holland, *AMA Delegate Advisory*

Reference Committee No. IV—Legislation and Miscellaneous
10:00 a.m., Ball Room C
William H. Harrison, *Chairman*
Karl B. Hanson
Allyn B. Giffin
Robert L. Andreae
Walter C. Jones III
Francis C. Coleman, *AMA Delegate Advisory*

Reference Committee No. V—Medical Economics
9:30 a.m., Westward Rooms II and V
Francis N. Cooke, *Chairman*
William W. O'Connell
Joseph A. Ezzo
James R. Forlaw
Louis P. Brady
Burns A. Dobbins Jr., *AMA Delegate Advisory*

The Speaker read the list of reports and resolutions referred to Reference Committees, as published in the Handbook, and called the House's attention to the referrals of supplemental reports and resolutions which had been distributed in the Delegates' Packets.

The Chair recognized Dr. William M. Straight, Chairman of the Committee on Archives, who presented the Supplemental Report of the Committee.

Dr. Straight: "Mr. Speaker, Fellow Physicians and Guests: At this moment in this, the first meeting of the House of Delegates for 1971, we would like to recognize those members who joined the Florida Medical Association in the years 1942 and 1943. Will these members please stand at this time. We have attached to their convention badges a ribbon in honor of this event. Tomorrow, Thursday, at twelve noon, in the Bal Masque Room, the Archives Committee will host a brief reception for all F.M.A. members who joined the association in the years 1940, 1941, 1942 and 1943. We urge your attendance for fellowship and light refreshments.

"For the next few moments we wish to honor the memory of our colleagues who have crossed the bar since our last annual meeting. Their names are listed in your delegates' packets and each is represented by a rose in the vases on the Speaker's platform. Among these was Dr. Eugene Peek Sr., who was President of our association in 1943. Although when we recall the help and encouragement they gave us and the good times we had together, sadness wells up within us, let us see the more positive side so aptly expressed by John Mills:

"Life's race well run,
Life's work well done,
Life's victory won,
Now cometh rest."

The House stood for a moment in honor of its colleagues.

Dr. Straight's report was referred to Reference Committee No. III, and the remaining reports and resolutions were referred as indicated in the packets.

Dr. Sanford Mullen, Chairman of the Committee on State Legislation, was recognized. "Mr. Speaker: As each of you is aware, the Florida Legislature is in session. A continuing stream of legislative items that need our attention have come too recently for us to include in our formal report in the Handbook. We would like the permission of the House to bring these items up for discussion before the Reference Committee to which our reports have been assigned. In particular, there are three bills pending relative to osteopathic physicians and one relating to use of hypodermic syringes and needles. There may be others which Mr. Fraser will bring or send to us. I am requesting permission to make these subjects a part of

our report so they can be discussed at the time of the Reference Committee."

The House unanimously approved Dr. Mullen's request.

The Speaker recognized Dr. Warren Quillian, President of Blue Shield of Florida, and Mr. Frank Kelly, Chairman of the Board of Blue Cross of Florida.

The Speaker announced that the Blue Shield annual meeting would be held at 8:00 a.m. on Thursday, May 6. He urged all members to attend the General Session on Friday at 11:00 a.m., at which time the President would present a panel of presentations on socioeconomics in medicine. He also announced the FLAMPAC-Auxiliary luncheon to be held on Friday, May 7, at 12:15 p.m. immediately following the General Session.

The House of Delegates recessed at 5:10 p.m., to reconvene on Saturday, May 8, 1971, at 3:00 p.m.

Second House of Delegates

The second meeting of the House of Delegates convened at 3:00 p.m. on Saturday, May 8, 1971, in the Bal Masque Room of the Americana Hotel, Bal Harbour, with Dr. Charles K. Donegan, Speaker of the House, presiding.

Dr. Hendrix reported 172 delegates registered, constituting a quorum, and moved that the House be seated. The motion carried.

DELEGATES

ALACHUA—John W. Andrews, Billy Brashear, Wilbur J. Coggins, George T. Singleton, William C. Ruffin Jr.
BAY—William D. Carter (Absent—William C. Roberts).
BREVARD—Donald Bryan, N. Frank Fain Jr., T. John Kaminski, Joseph C. Von Thron.
BROWARD—Miles J. Bielek, Robert J. Brennan, Russell B. Carson, Paul E. Gutman, David C. Lane, J. Gordon McAllister, Lees M. Schadel, W. Dotson Wells, John I. Williams, Norman N. Wrubel (Absent—Robert L. Andreae, Milton P. Caster, John H. Mickley, Ray E. Murphy).
CHARLOTTE—Robert Palmer.
CLAY—William A. Mulford.
COLLIER—(Absent—Fred A. Butler, Nicholas Kalvin).
COLUMBIA—Frank Adel.
DADE—William G. Aten, George Baldry, Jerome Benson, Morris Blau, Rufus K. Broadaway, Harvey Brown, Manuel Carbonell, Richard C. Clay, Francis Cooke, Vincent P. Corso, Joseph Davis, Robert F. Dickey, L. W. Dowlen, Miguel Figueroa, Joseph Fitzgerald, M. Eugene Flipse, Marshall Hall, Henry Hardin, James J. Hutson, Paul Jarrett, Walter Jones III, Robert Lee, Ronald Mann, Donald Marion, O. Ildefonso Mas, Charles Monnin, Sheldon Munach, Jean J. Perdue, M. Murray Schechter, Robert Schiess, Daniel Seckinger, Everett Shocket, Mario Stone, William Straight, Charles F. Tate, Maynard Taylor, Arthur W. Wood Jr., Nelson Zivitz (Absent—DeWitt C. Daughtry, Jim C. Hirschman, James R. Jude, Paul Mayer, Chauncey Stone).
DESOTO-HARDEE-GLADES — (Absent — Calvin W. Martin).
DUVAL—Clyde M. Collins, Emmet F. Ferguson Jr., John J. Fisher, Stephen P. Gyland, Karl B. Hanson, L. E. Masters, Thad Moseley, D. Darrell Phillips, Harry W. Reinstine Jr., John A. Rush Jr., Guy T. Selander, A. H. Wilkinson Jr.
ESCAMBIA—Charles J. Kahn, T. J. Marshall, Philip B. Phillips, Lockland V. Tyler Jr.
FRANKLIN-GULF—Joseph P. Hendrix.
HIGHLANDS—(Absent—Donald Hartwell).
HILLSBOROUGH—Richard H. Blank, Ernest R. Bourkard, Frank C. Coleman, Richard G. Connar, Irving M. Essrig, John C. Fletcher, Richard S. Hodes, Victor H. Knight, W. Mahon Myers, William W. Trice.
INDIAN RIVER—Charles C. Flood.
LAKE—J. Basil Hall, Thomas H. Nichols.
LEE-HENDRY—Larry Garrett, F. Lee Howington, Edward Salko.
LEON-WAKULLA-JEFFERSON — Nelson H. Kraeft, Robert N. Webster (Absent—E. G. Haskell).
MADISON—(Absent—William J. Bibb).
MANATEE—Irving E. Hall Jr., Roger A. Meyer.
MARION—Henry L. Harrell, C. Brooks Henderson.
MONROE—Jaime M. Benavides.
NASSAU—Marshall Groover.
OKALOOSA—W. W. Thompson.
ORANGE—Axel W. Anderson III, Louis P. Brady, Norman F. Coulter, Truett H. Frazier, Paul C. Harding, Harold W. Johnston, Franklin B. McKechnie, Louis C. Murray, Edward W. Stoner, Thomas B. Thames.
PALM BEACH—W. F. Ande, Carl E. Andrews, Vernon B. Astler, Jerry F. Cox, Maximilian A. Crispin, James R. Forlaw, Bernard Kimmel, R. B. Moore Jr., H. John Richmond.
PANHANDLE—(Absent—Herbert E. Brooks).
PASCO-HERNANDO-CITRUS—Randall Jenkins.
PINELLAS—James C. Fleming, Allyn B. Giffin, David S. Hubbell, Jack A. MaCris, Donald G. Nikolaus, Thomas M. Quehl, George H. Welch Jr., Walter H. Winchester, Rowland E. Wood (Absent—Joseph A. Ezzo, David T. Overbey Jr.).
POLK—James R. Boulware III, Thomas M. Caswell, J. Gerard Converse, John W. Glotfelty, Angelo Spoto (Absent—Robert J. Pfaff).
PUTNAM—Roy E. Campbell.
ST. JOHNS—W. W. O'Connell.
ST. LUCIE-OKEECHOBEE-MARTIN—Howard C. McDermid, Richard Q. Penick.
SANTA ROSA—(Absent—Claude J. Barnes).
SARASOTA—Samuel E. Kaplan, Franklin H. Pfeiffenberger, Karl R. Rolls, Millard B. White.
SEMINOLE—Luis M. Perez.
SUWANNEE-HAMILTON-LAFAYETTE — (Absent—Wilton Kane).
TAYLOR—(Absent—Frank Scarvey III).
VOLUSIA—Bob Bullwinkel, William Eyster, W. H. Harrison, R. W. Snodgrass.
WALTON—(Absent—Thomas G. Spence).
COUNCIL ON SPECIALTY MEDICINE—Frederick C. Andrews, James D. Beeson, Andre S. Capi, John M. Hamilton, William T. Mixson, Sanford A. Mullen,

Robert E. Raborn, Edward J. Sullivan Jr., Miles W. Thomley (Absent—West Bitzer, Jack H. Bowen, James W. Clower Jr., Samuel G. Hibbs, James M. Stem, Richard P. Thompson).

OFFICERS AND BOARD OF GOVERNORS—Henry J. Babers Jr., Jack Q. Cleveland, James T. Cook, James F. Cooney, William J. Dean, Richard C. Dever, Charles K. Donegan, Richard M. Fleming, Francis T. Holland, Floyd K. Hurt, Joseph G. Matthews, Eugene G. Peek Jr., James W. Walker, William M. C. Wilhoit (Absent—Franklin J. Evans).

President Cook assumed the chair. He introduced Dr. John T. Mauldin, a Past President of the Medical Association of Georgia, who was present as fraternal delegate from Georgia.

Dr. Cook asked Dr. Emanuel Suter, Dean, University of Florida College of Medicine; Dr. Donn L. Smith, Dean, University of South Florida College of Medicine; Dr. E. M. Papper, Dean, University of Miami School of Medicine; Mrs. Spanjers, President of the Auxiliary; and Mrs. Mathews, First Vice President of the Auxiliary, to come forward for the presentation of checks for unrestricted contributions to the medical schools through AMA-ERF. The University of South Florida College of Medicine received $463.73; the University of Florida College of Medicine, $4,477.83; and the University of Miami School of Medicine, $4,814.35.



Dr. Cook welcomes the deans from the three medical schools: Emanuel Suter, Dean, University of Florida College of Medicine; Donn L. Smith, Dean, University of South Florida College of Medicine, and Emanuel Papper, Dean, University of Miami School of Medicine.



Attending the Board of Past President's breakfast were (standing from left) Drs. Warren W. Quillian, W. Dean Steward, George S. Palmer, Samuel M. Day, H. Phillip Hampton, Leo M. Wachtel, Jack Q. Cleveland and Ralph W. Jack, (seated from left) William C. Roberts, Joseph S. Stewart, Henry J. Babers Jr., Jere W. Annis, Walter C. Jones and John D. Milton.

Report of Reference Committee No. I
Health and Education

Dr. William C. Ruffin Jr., Chairman of Reference Committee No. I, came forward to present the report of the reference committee.

Council on Scientific Activities

The Reference Committee proposed an amendment to the report of the Council on Scientific Activities which would combine three recommendations of the Council (Recommendations No. 4, 5 and 6).

The amendment was adopted.

The Reference Committee proposed an amendment to Item C of Recommendation No. 8 of the Council.

The amendment was adopted.

The report of the Council on Scientific Activities was adopted as amended.

Council on Scientific Activities

RICHARD C. DEVER, *Chairman*

The 1970-71 Association year was a significant one for the Council on Scientific Activities. Among noteworthy developments were the activation of the Florida Joint Commission on Medical Education, the appointment of an ad hoc Liaison Committee with Medical Students, and a thorough evaluation of the committees on Postgraduate Education, Research and Regional Medical Program.

The Council chairman attended an American Medical Association-sponsored conference on continuing medical education and the AMA Congress on Medical Education both held in Chicago. The chairman of the Committee on Medical Schools attended the annual meeting of the Association of American Medical Colleges held in Los Angeles. The information gained at these meetings was considered valuable to the Association's programs in the broad and diverse field of medical education.

All matters referred to the Council were considered and acted upon by appropriate committees before receiving final Council consideration. The full Council met January 30, 1971, to consider the reports of each of its committees and to adopt recommendations to be submitted to the Executive Committee, Board of Governors and House of Delegates. In this consolidated Council report, each committee's activities will be summarized. Matters considered by the entire Council as well as by an individual committee will be included as part of the most appropriate committee's activities. All recommendations adopted by the Council will be listed at the conclusion of the report. It should be noted that a number of recommendations which were made to the Executive Committee and Board of Governors at the request of those bodies will not appear in this report.

The Committee on the Journal and Other Publications worked during the year to continue the Journal's improvement as an effective publication representing Florida medicine. A name change reflecting this approach has been recommended to the Board of Governors. The review and processing of scientific material is considered to be facilitated with the appointment of a large editorial review board representing various specialty and subspecialty interests and geographic areas of the state. Because advertising continues to show a decline, other means of subsidizing the Journal should be considered. The Council commended the Editor and his staff for the Journal's continuing improvement.

The Committee on Medical Schools, which eventually may have its functions absorbed into the new Florida Joint Commission on Medical Education, considered the Commission's establishment after nearly two years of effort as a major accomplishment. The Commission, which held its initial meeting January 31, 1971, finally brings together all the major agencies, institutions and organizations concerned with medical education in the state. It is expected to serve a variety of functions and will advise and/or report to both the Association and the educational institutions. In its first meeting, the Commission studied a number of matters, including the training of family physicians and physicians' assistants, expansion of the number of medical graduates, the location and type of practice of the graduates of Florida's medical schools, a proposed Florida Regional Medical Program demonstration project for Medicare reimbursement in a teaching setting, a University of Miami-Westinghouse Corporation proposal to provide a model medical services program at Coral Springs in Broward County, and a draft of suggested guidelines for participation in community programs by medical schools.

Resolution 70-16, "Medical Education," was considered by the Committee on Medical Schools and the Council, both of which agreed that no further action was necessary in that the program for increasing the number of medical school graduates called for in the resolution already is under implementation by the State University System.



Reference Committee I personnel were Drs. Harold W. Johnston, William C. Ruffin Jr. (Chairman), William M. Straight and Irving M. Essrig. Linda Flowers was recording secretary.

Resolution 70-17, "A Program for Aid to Medical Education and Distribution of Medical Care in the State of Florida," was studied by the committee and the Council and it was concluded that while there is a need for financial aid to medical students, the method advocated by this resolution should be further studied. The deans of the medical schools were requested to provide additional specific information on the subject.

Resolution 70-27, "Family Practice," which, along with the two previous resolutions, was referred to the Council, was studied and found to be under implementation in the three medical schools to the satisfaction of the Committee on Medical Schools and the Council.

The Committee on Postgraduate Education conducted a careful examination of its past and future functions. Emphasis was given to the Association's relationships in the area of continuing medical education with the universities, the Florida Regional Medical Program, the community hospitals and private foundations. To be consistent with national terminology in medical education, a change in name has been recommended for the committee. The committee developed a series of proposals in its field of responsibility which were carefully evaluated and approved by the Council.

The Committee on Regional Medical Program analyzed its role as a liaison mechanism between the state's physicians and the Florida Regional Medical Program and as an observer for the Association relative to the federally-financed program. Considerable discussion was generated within the Council concerning the progress and development of the program in Florida to date and it was agreed that there was probably no one organization, committee or individual able to provide an objective evaluation. Following thorough consideration of the subject, the Council developed a series of recommendations.

The Committee on Research continued to review medical research grant applications for the Florida Medical Foundation and undertook a study to provide improved efficiency of scientific review procedures.

The Committee on Scientific Assemblies continued to develop and refine the format for the scientific portion of the annual meeting program initiated in 1969 in which co-sponsoring state specialty societies plan and produce the scientific sections, with financial, audiovisual and promotional assistance from the Association. The committee evaluated and chose scientific and educational exhibits for display at the 1971 annual meeting as well as carried out all necessary planning and implementation of the many details connected with the entire scientific program.

RECOMMENDATIONS

1. That all possible legislative support be given to the budget request for expansion of the University of Florida's J. Hillis Miller Health Center at Gainesville. (R.C. No. IV)

2. That the name of the committee on postgraduate education be changed to "Committee on Continuing Medical Education."

3. That emphasis be placed upon Continuing Medical Education on local levels in community hospitals and that the American Medical Association Physician's Recognition Award requirements be adapted to reflect this emphasis.

4. That a statewide survey of physicians' needs in continuing medical education not be done at the present time but that the Florida Regional Medical Program be encouraged to determine needs in local areas through its district offices; that the Committee on Continuing Medical Education be requested to investigate a state "Clearinghouse" for information on continuing medical education programs and that it consider utilizing similar methods to those used by the California Medical Association for ready access to such information, and that the requirement of continuing medical education as a prerequisite for medical society membership be kept under study.
(5. and 6. incl. in 4 above)

7. That local Medical Libraries be encouraged and supported in establishing regional Library Systems.

8. With respect to the Florida Regional Medical Program (hereafter referred to as the "FRMP"):

 (A) That the Florida Medical Association express continued concern with the direction and administration of the FRMP;

 (B) That an unbiased outside appraisal of the FRMP be carried out at this point in its history to evaluate its accomplishments and shortcomings;

 (C) That this Appraisal Committee consist of representatives to be appointed by the Board of Governors and that the appraisal of the Florida Regional Medical Program be extended to include a detailed and complete appraisal of any associated or related organizations such as AMCEN, PRES, etc.

 (D) That the report of the appraisal committee be made to the Florida Medical Association through the Committee on Regional Medical Program and the Council on Scientific Activities.

Supplemental Report
Council on Scientific Activities

In compliance with the 1970 House of Delegates' request, the Council on Scientific Activities had provided each member of the House of Delegates with cumulative information supplied by Florida's medical schools concerning the location and type of practice of graduates. Upon recommendation of the Reference Committee, the House directed this report be filed for information.

Council on Specialty Medicine

The Reference Committee recommended that the report of the Council on Specialty Medicine be adopted as printed in the Handbook, and it was adopted.

Council on Specialty Medicine

JOSEPH G. MATTHEWS, *Chairman*

The Council on Specialty Medicine met once this year and scheduled two other meetings but these had to be cancelled due to a lack of items for an agenda. The items from the meeting have been transmitted to the Board of Governors for their consideration.

The purpose of the Council is to serve as a forum and sounding board for various specialties, for dissemination of information of mutual interest and concern and to help correlate activities which relate to the various specialties and specialty societies.

Further, the Board of Governors has designated this Council to act as an advisor to the Committee on State Legislation when specialty legislation is concerned, and also pointed out that any independent legal action by a specialty group to enact legislation must be approved and coordinated through the FMA legislative program.

Report of Board of Governors

Referral by 1970 House of Delegates Resolution 70-17—Aid to Medical Education

The Reference Committee recommended that the report of the Board of Governors concerning Resolution 70-17, Aid to Medical Education, which had been referred to the Board by the 1970 House of Delegates, be adopted. It was adopted.

(See Report of Board of Governors, page 45)

Board Action No. 26 Annual Meeting Program

The Reference Committee recommended that Action No. 26 of the Board of Governors, concerning the Annual Meeting program, be adopted. It was adopted.

(See Report of Board of Governors, page 48)

Subcommittee on Venomous Snake Bite

Upon the recommendation of the Reference Committee, the House directed that the report of the Subcommittee on Venomous Snake Bite be filed for information.

Resolution 71-14 Professional Standards for Athletic Trainers Alachua County Medical Society

The Reference Committee proposed an amendment in the wording of Resolution 71-14, by changing in the first paragraph the word "athletics" to "athletic training." The amendment was adopted, and the resolution was adopted as amended.

Resolution 71-14

Professional Standards for Athletic Trainers

Whereas, The American Medical Association and the Florida Medical Association have long recognized the importance of proper health supervision in providing athletic training for participants and the relationship of such supervision to the promotion of the art and science of medicine and the betterment of public health is clearly evident; and

Whereas, In 1967, the AMA House of Delegates recognized the fine rapport developed between the Committee on the Medical Aspects of Organized Athletics and the National Athletic Trainers Association (NATA), they lauded the development of professional standards by the NATA and they further recommended that all athletic teams have the benefit of a professionally prepared athletic trainer as a part of the medical supervisory team. The AMA House of Delegates specifically approved the following recommendations that:

1) The AMA recognized the importance of the role of the professionally prepared athletic trainer as a part of the team responsible for the health care of the athlete;

2) The NATA be commended for its efforts to upgrade professional standards, since improved preparation and continuing education enable athletic trainers to work effectively with physicians in the health supervision of sports; and

3) State and local medical societies and physicians individually be encouraged to help advance the professional goals of the NATA in their communities through appropriate liaison activities; and

Whereas, In 1969, the House of Delegates of the AMA urged the creation of athletic medical units in all schools having sports programs and that such units have athletic trainers or athletic health coordinators; and

Whereas, The NATA has just formulated an outstanding set of procedures for certification based on educational preparation, years of experience, continuing education, apprenticeship training and certifying examinations; all evaluated by a Board of Certification composed of physicians and qualified athletic trainers; and

Whereas, The AMA Committee on Medical Aspects of Organized Athletics has unanimously approved this resolution; therefore be it

RESOLVED, That the Florida Medical Association go on record as officially recognizing NATA's certification procedures and certification board, and be it further

RESOLVED, That where and when possible recommend to local boards of education the appointment of certified athletic trainers (NATA) to work with physicians in the important area of health and supervision of athletes.

Resolution 71-15 Community Medical Educational Programs Escambia County Medical Society

The Reference Committee recommended an amendment to the last paragraph of this resolution, by deleting the words "cooperatively with, but independently of," and by adding in their place "in concert with," so the first sentence of the paragraph would read:

"RESOLVED, That these Community Medical Education Programs form the basis for expanded medical education opportunities inherent in the Florida Plan of Medical Education by working in concert with the medical schools."

A substitute motion for the reference committee's recommendation was made from the floor, which would retain the original wording of the entire last paragraph of the resolution, and would add at the end the phrase, "and that in Florida, this be through the Board of Regents."

The substitute motion carried, and Resolution 71-15 was adopted as amended.

Resolution 71-15

Community Medical Educational Programs

Whereas, There is a well-established need to meet the demands for health services in this country, and

Whereas, The practitioner physician is well-qualified by training and experience to devise appropriate and adequate methods of delivery of health services, and

Whereas, The practitioner physician has demonstrated his adequate qualifications to teach, and

Whereas, Community Medical Educational Programs can provide an appropriate means to meet medical needs, be it therefore

RESOLVED, That the professional physician associations (County, State, and American Medical Association) initiate the development of the Community Medical Education Programs under local sponsorship of the medical societies in cooperation with the hospitals and the community, and further be it

RESOLVED, That these Community Medical Education Programs form the basis for expanded Medical Education opportunities inherent in the Florida Plan of Medical Education by working cooperatively with, but independently of, the medical schools. That the Florida Medical Association and the American Medical Association through appropriate representation request State Government and Legislatures to support said Community Medical Education Programs, and that in Florida, this be through the Board of Regents.

Resolution 71-28
Support for Training in Mental Health

SAMUEL G. HIBBS, *Delegate*

The Reference Committee suggested that Resolution 71-28 be amended by adding to the end of the resolution a directive that the resolution be sent to the members of the House of Representatives Committee on Appropriations and Subcommittee on Labor, Health, Education and Welfare.

The amendment was adopted, and Resolution 71-28 was adopted as amended.

Resolution 71-28

Support for Training in Mental Health

Whereas, Mental illness, related problems of drug abuse and alcoholism and mental retardation continue to rank at the top of the nation's health problems—whether measured by numbers of patients, amount of suffering by patients and their families, cost of care or the loss of manpower to our society, and

Whereas, We are in the midst of a nationwide comprehensive community mental health and mental retardation program which was designed to attack the problem from all aspects ranging from prevention to rehabilitation with a major emphasis on developing an improved vehicle for delivery of comprehensive health services, and

Whereas, Special programs are being developed to combat the growing problem of drug abuse, alcoholism delinquency and crime, and

Whereas, Mental health manpower is the vital element necessary to insure the success of the programs mentioned above, and

Whereas, The educational training of this manpower has been heavily supported by NIMH training grants, and

Whereas, There have been recent announcements of the proposed elimination of trainee stipends and a serious (6.7 million dollar) cut in the financial support for training programs, and

Whereas, Elimination or reduction of such support would seriously cripple and in many instances eliminate graduate education in psychiatry and other mental health and retardation related disciplines, and

Whereas, The loss or reduction of support at this time will soon seriously hamper the efforts to improve delivery of services in the areas mentioned above; now therefore be it

RESOLVED, That this association go on record to deplore the proposed reduction or elimination of federal support for mental health, mental retardation and related disciplines and manpower training and to express our grave concern for the consequences of such proposed cutbacks; and be it

RESOLVED, Further that the association express its alarm and concern and the concern of medicine in general to the Florida congressional delegation, to the American Medical Association Council on Mental Health and to the appropriate committees of the Florida State Legislature; and be it further

RESOLVED, That we urge our representatives in Congress to do all they can to restore the cuts and exert all possible influence with the executive branch of the government to insure that the intent of Congress to continue to support education and training in mental health and mental retardation and related fields be supported, and that a written statement containing the substance of this resolution be sent to the following members of the House of Representatives Committee on Appropriations and Subcommittee on Labor, Health, Education and Welfare: Daniel J. Flood, Pennsylvania, Chairman; William H. Natcher, Kentucky; Neal Smith, Iowa; W. R. Hull, Jr., Missouri; Bob Casey, Texas; Edward J. Patten, New Jersey; Robert H. Michel, Illinois; Garner E. Shriver, Kansas; Charlotte T. Reid, Illinois; Silvio O. Conte, Massachusetts.

Dr. Ruffin: "The chairman wishes to express his appreciation to all of the members who appeared before our committee and to the members of the committee who worked so diligently."

A motion to adopt the report of the reference committee as a whole as amended carried.

"Mr. Speaker, this concludes the report of Reference Commitee No. I."

Report of Reference Committee No. II
Public Policy

Dr. Norman F. Coulter, Chairman of Reference Committee No. II, Public Policy, came forward to present the report of the Reference Committee.

Council on Allied Professions and Vocations

With reference to the portion of the report of the Council on Allied Professions and Vocations pertaining to physician's assistants, the Reference Committee recommended that physician's assistants not be licensed. Dr. Coulter explained that the Reference Committee believed that licensure of physician's assistants would gradually lead to the establishment of private practice by these assistants.

The Reference Committee proposed an amendment in the report, under the Committee on Medical Assistants, sixth paragraph, last sentence, by adding the word "not", so the sentence would read ". . . physician's assistants in remote areas *not* adequately under his supervision and control . . ."

The amendment was adopted.

The Reference Committee recommended that the Council's Recommendation No. 8 be amended by adding the words "contrary to present legislative activity" parenthetically at the end of the recommendation.

The amendment was adopted.

The Reference Committee believed that Recommendation No. 9 of the Council might be too restrictive and recommended that it be referred to the Board of Governors for further study.

The Reference Committee's recommendation was adopted, and Council Recommendation No. 9 was referred to the Board of Governors.

The Reference Committee recommended an amendment to the Council's Recommendation No. 15, by deleting the words "paramedical personnel" and substituting in their place the words "allied health personnel."

An amendment was moved from the floor, to delete from the recommendation the phrase "and that the American Society of Radiological Technicians' certificate be accepted as certification," and to insert the word "voluntary" before the word "certification" in the two remaining places it appears.

The amendment was adopted; and the Reference Committee's recommendation was adopted as amended.

With reference to Recommendation No. 16 of the Council, concerning exchange of speakers with the Florida Podiatry Association, the Reference Committee recommended that this not be an annual tradition but that it be reviewed annually by the societies involved.

The Reference Committee's recommendation was adopted.

The Reference Committee recommended that, inasmuch as Recommendation No. 18 of the Council reiterates what already exists and publica-



Reference Committee II personnel were Drs. Nelson H. Kraeft, Karl R. Rolls, Miles J. Bielek, Samuel M. Day and Norman F. Coulter (Chairman). Sandy Neel was recording secretary.

tion of this ruling is not in the best interest of organized medicine, Recommendation No. 18 be deleted.

The Reference Committee's recommendation was adopted.

There was a motion from the floor to amend Recommendation No. 20 of the Council to read ". . . except that the physician has the responsibility to strongly recommend the acceptance or rejection of the optician chosen by the patient for just cause."

There was discussion, and the amendment was not adopted.

The report of the Council on Allied Professions and Vocations was then adopted as amended. A later motion to reconsider the report of the Council on Allied Professions and Vocations failed to carry.

Council on Allied Professions and Vocations

WILLIAM J. HUTCHISON, *Chairman*

The council held one meeting during the year, on September 20, 1970. A summary of activities and recommendations of the Council and its 13 committees follows:

Committee on Dietetics—The committee chairman met several times with members of the Florida Dietetic Association, and the major activity was the preparation of a dietary manual for use in small hospitals and nursing homes in the state of Florida.

FMA's consultant role to the Florida Dietetic Association was extremely well received, and liaison has been excellent. The dietary manual has three completed sections which are now in field trials. The completed manual is expected to be field-tried within the next year. When it is ready for publication, certain FMA members will be asked to write introductory paragraphs to each of the five or six specific sections.

In November 1970, the chairman was a guest speaker at the Florida Dietetic Association's annual convention in Ft. Lauderdale. There was an atmosphere of cooperation between the Florida Dietetic Association and the FMA, an effort which is the first major one between these two organizations.

Committee on Dentistry—There were no matters requiring a formal meeting of this committee. There was continuing dialogue between the chairman and his counterpart of the Florida Dental Association's Committee on Medicine. Relations appear to be excellent and continuing liaison is a valuable communicative link between the two professions.

Committee on Medical Assistants—The Committee on Medical Assistants held two meetings, September 20, 1970, and January 10, 1971.

The most pressing matter considered by this committee was health manpower and the growing need for allied health personnel. Of particular importance is the increasing use of various categories of "physician assistants" across the country.

The committee carefully deliberated the possible implementation of this concept of providing health services in Florida. In addition, the committee met jointly with a special ad hoc committee of the State Board of Medical Examiners. The following definition of physician's assistants was accepted:

> "The physician's assistant is a skilled person qualified by academic and practical training to provide patient services under the supervision and direction of a licensed physician who is responsible for the performance of that assistant."

In order to define the various types of physician's assistants and to provide a working definition, the simple outline by Jack Fleming, M.D., was accepted as a classification of the health care assistants.

1. Physician Oriented Health Care Assistants—(Physician's Assistants) A. Physician's associates such as trained by the four year Duke program. B. Specialized physician's assistants such as pediatric assistants and orthopaedic assistants. C. General physician's assistants are those with less training than the physician's associate.
2. Nursing Oriented Health Care Assistants—A. Licensed practical nurse. B. Specialized nursing technician. C. General nursing technician.
3. Office Oriented Health Care Assistants—(Medical assistants, such as the Girl Friday.)

The committee has made specific recommendations relative to the training, utilization and regulation of physician's assistants, and all other categories of allied health personnel. Further, the committee has undertaken to survey members of the Florida Medical Association to clearly determine the degree of need and desirability for training physician's assistants in Florida.

It was the opinion of the council that no special statute be enacted for licensing physician's assistants. It has been established that the physician's assistants may work under the existing license of the employing physician. It was recommended that the qualifications of the particular physician's assistant and a work description be forwarded to the Board of Medical Examiners and that it then certify a specific physician's assistant to work for a particular physician. This would prevent abuse of the physician's assistants programs, particularly where the physician may have several physician's assistants in remote areas not adequately under his supervision and control, and would prevent the use of the physician's assistant in a field for which he has not been trained.

In other activity the committee acted to make the county societies aware of the Medical Assistants Association, and to clarify the role of the medical assistant. This was achieved through a communique from the secretary of FMA to the component county societies.

Committee on Opticians—This committee met with the executive committees of the Florida Society of Opticians and the Florida Association of Opticians. Council action has been taken regarding committee proposals relative to: defining opticians as a type of physician's assistants; endorsement of the training program for opticians at Florida Junior College at Jacksonville; and an expression of support for the opticians in litigation brought by optometrists regarding the dispensing of contact lenses.

The Committee on Opticians formulated five recommendations concerning opticians and the filling of prescriptions for contact lenses, which are included with the council recommendations later in this report.

Committee on Nursing—The committee met on September 20, 1970, and as is annual custom, met jointly with members of the Florida Nurses Association on January 9, 1971. The committee concerned itself with a number of matters, including recommendations regarding the expanding role of nurses and their possible utilization as physician's assistants.

The committee demonstrated its feeling that continuing liaison is vital to mutual understanding between the physician and the nurse. A joint meeting with representatives of the Florida Nurses Association produced dialogue enhancing mutual understanding on many matters, and, specifically, on the expanding role of the nurse and her possible role as a physician's assistant. An agreement was reached that physician's assistants not be recruited exclusively from registered nurses, but that RN's not be excluded from becoming physician's assistants. Other significant action included the decision to prepare a joint position paper on the role of nurses and physicians in delivering health care in the 70's in Florida, and a clear

expression of the need and value of liaison between the two professions.

Committee on Physical Therapy and Rehabilitation—On September 20, 1970, the committee met jointly with representatives of the Florida Chapter of the American Physical Therapy Association. The committee concerned itself with the need and request for a second state school of physical therapy, to be located at the University of South Florida; changes in the Physical Therapy Act; and participation in Board activities dealing with physical therapy by physical therapy members of the State Board of Medical Examiners.

Committee on Podiatry—This committee met jointly with the Medical Liaison Committee of the Florida Podiatry Association on September 19, 1970. Cordial professional relations, and understanding between the two professions are apparent. Significant achievements included an agreement for an exchange of speakers at the annual meeting of the respective organizations, an article on podiatry in the *Journal of the Florida Medical Association*, and continuing communication between chairmen of the two committees.

Committee on Medicine and Religion—The committee held one meeting on April 12, 1970. Activities included a special program presented at the 1970 FMA Annual Meeting entitled, "The Physician's Responsibility in the Prolongation of Life." The committee also had an exhibit on Medicine and Religion at the annual meeting. Other action included laying of plans to hold regional workshops on Medicine and Religion in different areas of the state in lieu of the annual workshop customarily held at the time of the FMA's Annual Presidents and Secretaries Conference.

Committee on Pharmacy—This one-man committee has been concerned with trying to draft a prescription form for use in prescribing narcotics and other drugs subject to abuse. The committee plans a meeting with members of the Florida Pharmaceutical Association particularly to discuss legislative cooperation.

Committee on Radiologic and Nuclear Medicine Technologists—A problem was referred to the Committee on Radiologic and Nuclear Medicine Technologists concerning Senate Bill 3973 which pertains to x-ray technicians. Essentially, this bill would endorse federal control over schools of x-ray technology and licensure of x-ray technicians, and would require a registered x-ray technician to make all x-rays even in a physician's or dentist's office.

Progress is being made in the development of training programs for radiologic and nuclear medicine technologists in the state.

Junior college programs with continuing good work in this field are located in Hillsborough, Duval, Indian River and Broward Counties. A new program is being instituted in Palm Beach County. We hope that Dade County can again establish an approved program for training of radiologic technologists. The members of the Florida Radiologic Society and the Greater Miami Radiologic Society are most interested in its success.

The nuclear medicine technology two-year program at Hillsborough County Junior College is progressing and is needed, particularly since the School of Nuclear Medicine Technology at Winter Haven has closed.

The Committees on Law, Medical Technologists and Veterinary Medicine have not been active during the year and held no formal meetings. However, continuing liaison has been maintained between these committees and their related organizations.

RECOMMENDATIONS

1. That training of physician's assistants not be construed as having higher priority than the training of practicing physicians.

2. That the Florida Medical Association accept and approve the following working definition of physician's assistants as adopted by the AMA:

 "The physician's assistant is a skilled person qualified by academic and practical training to provide patient services under the supervision and direction of a licensed physician who is responsible for the performance of that assistant."

3. That training programs for physician's assistants be established only after Florida Medical Association and State Board of Medical Examiner's approval. The Florida Medical Association favors the simple outline of health care assistants, as presented to the Council by Dr. Jack Fleming, as a tentative working definition and classification of health care assistants.

4. That physician assistants not be recruited exclusively from RN's, but that RN's not be excluded from becoming physician assistants.

5. That FMA stage one approval (procedural endorsement) be granted the pilot study to test physician's assistants in rural areas as proposed by Dr. Richard Henry, using physician's assistants who have already been trained in an approved program.

6. That FMA approve in principle and encourage further exploration by the University of Florida into the cardiovascular technician training program, and that stage one approval (procedural endorsement) be granted this program.

7. That the FMA emphasize that first priority in training of physician's assistants is for the rendering of health care outside of the hospital setting in the local-physician supervised general delivery of health care.

8. That the Board of Medical Examiners be requested to consider certification as opposed to licensure of physician's assistants in Florida (contrary to present legislative activity).

9. [Referred to Board of Governors] That eventual qualifications of physician's assistants be determined by a national certification body, with endorsement and permission for a particular assistant to be employed by a particular physician by the Florida Board of Medical Examiners.

10. That FMA oppose the "California-Type" bill which was proposed for prefiling by a legislator for the State of Florida; that it favor the bill proposed by the State

Board of Medical Examiners; and that this matter be given top priority by the Board of Governors. (R.C. IV)

11. That the FMA and the Florida Nurses Association prepare a joint statement on the role of nurses and physicians in delivering health services in Florida along the general lines of the AMA Committee on Nursing's position paper on "Medicine and Nursing in the 1970's" issued September 14, 1970, in the Journal of the AMA; and that the FMA Committee on Nursing continue to act in a liaison capacity with the Florida Nurses Association.

12. That the FMA urge the Board of Regents to establish a second school for physical therapists at the University of South Florida.

13. That the Florida Medical Association endorse the proposed changes in the physical therapy act other than the eighth change. (R.C. IV)

14. That the Florida State Board of Medical Examiners be urged to invite those physical therapy members of the board to meetings whenever anything concerning physical therapy is to be on the agenda.

15. That the Florida Medical Association endorse voluntary certification rather than licensure of radiologic technologists; and that voluntary certification rather than licensure for all allied health personnel be considered.

16. That the chairman of the Committee on Podiatry be authorized to correspond with the Florida Podiatry Association's Medical Liaison Committee to discuss and work out mutual problems and concerns; approval of the Florida Podiatry Association's submitting an article for publication in the Florida Medical Association's Journal defining the educational background, training and aims of podiatrists in the state and that such an article be co-authored by a member of the Florida Medical Association's Committee on Podiatry; and that a Florida podiatrist be invited to speak at the orthopedic scientific section during the 1971 FMA annual meeting and that an orthopedist speak at the next meeting of the Florida Podiatry Association.

17. That resolution 69-8, (Orange County's Resolution) Definition of Podiatry, not be approved and be dropped from the agenda. (R.C. IV)

18. [Deleted]

19. That an optician is a licensed allied health professional and a prescription from the physician to the optician for contact lenses should contain the refractory power to be incorporated into the lenses and such other information as the physician desires.

20. That each patient shall have a free choice of the optician he desires to fill the physician's prescription for contact lenses except that the physician has the final right and responsibility to accept or reject the optician chosen by the patient for just cause.

21. That an optician must have direct written permission from the prescribing physician for each patient of that physician for the filling of a contact lens prescription.

22. That an optician must acknowledge to the physician in writing that he is responsible for instructing each contact lens patient to return to the prescribing physician for examinations as the prescribing physician indicates.

23. That the prescribing physician shall have the final authority for all care relating to the fitting, altering, and wearing of contact lenses prescribed by him and dispensed under his supervision.

Council on Medical Services

The Reference Committee recommended that Recommendation No. 3 of the Council on Medical Services be amended by deleting the words "be encouraged to" from the phrase "that all blood banks be encouraged to institute appropriate tests . . ."

The amendment was adopted.

With reference to Recommendation No. 1 of the Council concerning the 1971 White House Conference on Aging, Dr. Jean Perdue of Dade County was recognized by the Chair. Dr. Perdue explained that although attendance at this conference is officially by invitation, any member who wishes to attend would certainly be welcome.

The report of the Council on Medical Services was adopted as amended.

Council on Medical Services

THOMAS B. THAMES, *Chairman*

The Council on Medical Services had a busy year which saw numerous and varied problems and issues facing most of its 13 committees. One formal Council meeting was held February 28, 1971, for the purpose of considering the committees' individual reports and recommendations and preparing the Council's annual report.

This 1970-71 report of the Council will begin with brief descriptions of several matters which affected the entire Council or more than one of its committees. It will continue with summaries of the individual committees' activities and conclude with recommendations identified as to committee source to facilitate reference for further information.

Legislative advice—One significant new source of activity for the Council is the Florida Legislature. With its annual sessions and committees functioning nearly the year round, the state legislative body, through the Association's Capital office, has increasingly called upon various committees of the Council for medical advice and testimony on proposed measures. The current concern with environmental problems as reflected in the number of legislative bills introduced has brought about a need for recognition of this important area in the Association's committee structure. For this reason, a change in name is being proposed for the Committee on Public Health.

State central coordination of medical services—At the request of the Executive Committee, the Council reviewed a concept of consolidation and coordination of state medical services proposed by the Secretary of the Department of Health and Rehabilitative Services. This tentative concept was endorsed in the interest of improvement and better utilization of the state's medical service programs.

Survey of medical care needs of state institutions—In the fall of 1970, the Association was requested by the Secretary of the Department of Health and Rehabilitative Services to review and evaluate field surveys of the medical needs of all facilities and institutions operated by that agency. The surveys were conducted by professional teams from the Department's Division of Health and by outside consultants. Appropriate committees of the Council carried out the evaluations for each category of institution. The participating committees were Child Health, Mental Health, Mental Retardation and Public Health. A summary report of the findings was transmitted to the state through the President of the Association.

Disney World medical services—At the Board of Governors' request, the Council chairman prepared a report on the plans for medical and related services for the new Disney World complex in Orange and Osceola counties. This report was presented to the Board at its January 1971 meeting.

Multiphasic biochemical screening project—At the request of the Board of Governors, the Council and the Committee on Public Health studied a multiphasic biochemical screening project proposed by a Dade County physician and recommended that the proposal be referred to the local medical association in that area for review.

Resolution 70-6, "Cooperative Efforts of Medical Societies and School Boards on Problems of Education of the Pregnant Child"—The Council, through its Committee on Child Health, was requested by the Executive Committee to present Resolution 70-6 to the state school system. Although this action was accomplished, it was learned by the committee that a legislative measure was under development which would assist materially in implementing the intent of the resolution. A recommendation of support for this legislation was formulated and approved by the Council.

The Committee on Aging reviewed all policies of the Association of the past decade affecting the health of the aging and assembled them into a single file. The committee has continued to represent the Association in the semiannual meetings of the Florida Joint Council on Health of the Aging. The committee's major area of activity has been keeping abreast of Florida's planning for the 1971 White House Conference on Aging, to be held in November. The chairman participated in a Governor's Conference on Aging held in Miami Beach in October, 1970, and has been appointed to one of the task forces for Florida's White House Conference planning, which will culminate with another state conference in May, 1971.

The Committee on Blood continued to work towards the establishment of necessary regulation of the practice of plasmapheresis in Florida. It is hoped that a meeting to be held in the near future between the committee and representatives of the State Board of Medical Examiners and the Division of Health will produce some specific results. The Committee also devoted attention to informing physicians and blood banks of the ramifications of recent legal decisions upholding the implied warranty on "strict liability" concept of blood and blood products.

The Committee on Child Health remained one of the Association's busiest committees in meeting quarterly as School Health Medical Advisory Committee to the State Department of Education and Division of Health.

The Committee also was designated by law as advisory committee to the schools in the Drug Abuse Education Act of 1970. Some of the committee's numerous activities and accomplishments during the past year included efforts to keep students from being excluded from school for reasons of pregnancy, motherhood or marriage (referred to earlier in the report on resolution 70-6); preparation of a "policy index" containing all school health policies adopted by the committee over the years for the guidance of schools, health departments and medical societies; formulation of a uniform package program of health insu ance requirements for county school systems; expansion and improvement of health education teacher training programs in the state universities; development of recommendations aimed at discouraging smoking in schools; approval of the use of low-calorie lunches as a new approach in dealing with the problem of obese students, and production of a videotape on vision screening methods in cooperation with the FMA Committee on Vision and the State Department of Education.

The Committee on Emergency Medical Service maintained surveillance over developments in its field throughout the nation and state. Receiving particular attention were the use of helicopters for emergency transportation, the improvement of emergency communications systems and the effects of changing staffing patterns of hospital emergency departments. The Committee also continued to function separately as state medical advisory committee for the Selective Service System and it was concluded in view of a need for increased attention and activity in the rapidly moving area of emergency services that these duties should no longer be the responsibility of a single committee.

The Committee on Hearing undertook an appraisal of hearing screening programs for Florida school children. It continued attempts to overcome a number of problems retarding the establishment of an ongoing statewide program. In the meantime, the Committee has encouraged local screening efforts by public health nurses, teachers, parents and physicians by which patients may be referred to ear specialists for correction. The committee also has been searching for a civic organization or philanthropist to help finance activities in this field.

The Committee on Labor has been accorded a standby status, as in recent years, pending development of any matters requiring active liaison with organized labor groups in the state.

The Committee on Maternal Health reviewed proposed legislation revising Florida's abortion statutes and elected to make its members available to provide expert testimony on this subject during the 1971 session of the legislature. The Committee also reviewed plans for a legal, ethical abortion facility in international waters and voted to neither endorse nor oppose the project.

A proposed definition of a nurse-midwife for inclusion in the rules and regulations of the Division of Health was approved. A question concerning the need for legislation permitting and regulating voluntary sterilization was referred to the Committee and its opinion was that such provision should be made in hospital medical staff by-laws rather than by state law. During the year the Committee continued its statewide maternal mortality survey, reporting a high degree of cooperation from physicians and hospitals.

The Committee on Mental Health evaluated the medical needs of facilities and institutions of the Department of Health and Rehabilitative Services' divisions of Mental Health and Corrections. Prior to that, in April,

1970, at the request of the Secretary of that state agency, the committee conducted an intensive on-site field investigation of newspaper charges of patient neglect at the Florida State Hospital, Chattahoochee. The final report, which found most of the allegations without foundation, was submitted in June. The Committee's findings continue to be useful to the state. Much of the Committee's activity during the remainder of the reporting period was devoted to rendering opinions on proposed legislation in the mental health field.

The Committee on Mental Retardation participated in the evaluation of medical needs of the facilities of the Division of Retardation. The Committee also concerned itself with the problem of testing newborns for PKU and other metabolic disorders.

The Committee on Occupational Health reviewed its past activities and has under development an evaluation of its role and functions.

The Committee on Public Health remained one of the Association's most active committees in serving as the primary referral point for not only all matters generally considered in the public and community health area but increasingly for environmental problems. As indicated earlier in this report, an expanded title is being recommended for the Committee. A brief listing of some of the principal matters acted upon by the Committee during the past year includes planning for a statewide conference on communicable diseases (as previously authorized by the House of Delegates) in cooperation with the Division of Health to be held late in 1971, medical services for migrant farm workers in Collier County, premarital physical examinations, the status of PKU and other metabolic disease screening, swimming pool sanitation, the health hazards of toxic pesticides, the public health aspects of remotely located residential retirement developments, administration of the state's clinical laboratory law, fluoridation of public water supplies, the presentation of expert medical legislative testimony on environmental proposals, participation by the Association in conservation organizations, resolution of overlapping inspection responsibilities of state agencies, the need for additional laws providing protection against radiation hazards, the status of implementation of Florida's implied consent law, the need for improved venereal disease control measures, and relationships between county medical societies and health departments.

The Committee on Rural Health continued to represent the Association in the activities of the joint Florida Committee on Rural Health which numbers seven statewide agencies and organizations in its membership. The Committee has closely followed progress of the University of Florida's Lafayette County clinic project, and noted with interest the first formal meeting of the project's medical advisory committee on November 22, 1970. The advisory committee has been requested to report its activities to the Committee on Rural Health. During the period of this report, the Committee devoted major effort to the problems of the health of retired persons residing in remote areas, emergency transportation of the sick and injured and the improvement of communications for physicians and hospitals in rural locations.

The Committee on Vision completed production of a videotape on vision screening of children. The videotape, which was produced in cooperation with the State Department of Education and its School Health Medical Advisory Committee, will be made available to county school systems and health departments. Other areas of Committee activity included the development of training programs for ophthalmic technicians, review and monitoring of proposed legislation in the eye field, and the provision of advice to the Division of Vocational Rehabilitation and other agencies and groups concerned with vision problems.

RECOMMENDATIONS

(Committee on Aging)

1. That the Association's membership and component county medical societies be urged to participate to the most active possible extent in the Florida planning and follow-up for the 1971 White House Conference on Aging.

(Committee on Blood)

2. That the "strict liability" concept of blood and blood products be noted as a problem with serious ramifications for all of medicine and kept under careful surveillance for possible appropriate action if indicated.

3. While recognizing that presently available approved tests for hepatitis are not totally reliable, that all blood banks institute appropriate tests of blood for hepatitis-associated antigen.

(Committee on Child Health)

4. That Senate Bill 124 providing mandatory education to age 16 be endorsed as a significant step towards implementing the intent of Resolution 70-6. (R.C. IV)

5. That the Association express concern that there is inadequate health education in State University Teacher Training Courses at elementary and secondary levels and urge expansion and improvement of such instruction to better equip teachers to observe learning disabilities and instruct students in health-related problems.

(Committees on Child Health and Public Health)

6. That compulsory immunization of children as a prerequisite for admission to schools and day care centers be reendorsed, with determination of specific required immunizations to be made by the Division of Health.

7. [Deleted by R.C. No. III]

8. [Deleted by R.C. No. III]

9. That all possible support be given to House Bill 3495 providing for fluoridation of public water supplies and that the Association's Committee on State Legislation be requested to utilize the key contact physician system for this purpose, and further, that it be considered a prime legislative goal of the Association. (Amended-R.C. IV)

10. That the Association support three legislative measures proposed by the Division of Health to (1) establish a fee system for radiological inspections, (2) regulate the transportation of radioactive materials, and (3) control the use of lasers. (R.C. IV)

11. That the Association support full implementation of Florida's Implied Consent Law with appropriate funding in connection with the Federal Highway Safety Act and that this recommendation be referred to the Medical Advisory Committee to the Florida Department of Highway Safety and Motor Vehicles.

(Committee on Rural Health)

12. That the problem of providing emergency transportation for the ill and injured, especially in rural areas, be given high priority by the Association.

Supplemental Report Committee on Blood

Upon recommendation of the Reference Committee, the Supplemental Report of the Committee on Blood was adopted as printed.

Supplemental Report Committee on Blood

The House of Delegates in 1970 supported the opinion of the Committee on Blood that the practice of plasmapheresis constitutes the practice of medicine and that the State Board of Medical Examiners should be the appropriate agency to regulate such practice in the public interest.

To help bring about implementation of this necessary regulatory responsibility, the Committee held a joint meeting April 7, 1971 in Jacksonville with representatives of the Board of Medical Examiners and the Division of Health, which is responsible for administration of the Clinical Laboratory Law. Agreement was reached that the two agencies working in conjunction have the authority and responsibility to regulate the practice of plasmapheresis in Florida. As an initial test case, it was decided that the Board of Medical Examiners, upon the request of the Division of Health, would enter into the investigation of a plasmapheresis center already being investigated by the latter agency for alleged noncompliance with the Clinical Laboratory Law.

The Committee on Blood will keep abreast of all developments in this critical area of medical practice and will be prepared to formulate any necessary further recommendations.

Council on Voluntary Health Agencies

Upon the recommendation of the Reference Committee, the report of the Council on Voluntary Health Agencies was adopted as submitted.

Council on Voluntary Health Agencies

FRANK L. CREEL, *Chairman*

The Council held meetings on September 26, 1970 and February 13, 1971. Both meetings included joint meetings with executive directors of the recognized voluntary health agencies.

The following is a summary of the Council's activities during 1970-71:

Educational Exhibit—The Council sponsored an educational exhibit during the 1970 Florida Medical Association's annual meeting. The pictorial exhibit iillustrated the Council's structure, and outlined its functions and relation to the recognized voluntary health agencies.

Liaison With Agency Executive Directors and Florida Voluntary Health Agencies—Dialogue with the executive directors of the recognized voluntary health agencies continued to be a vital part of Council activity during the year. Two joint meetings were held, with good attendance at both meetings. Many subjects were discussed, and there was productive exchange of information.

A noteworthy matter of discussion at the joint meeting was the continuing professional education programs which have been implemented by the Florida Voluntary Health Association for agency executives. The first management seminar was held in cooperation with the School of Health Related Professions at the University of Florida. The program emphasized basic management courses for new executives. More advanced courses are being considered for senior executives. While this program does not offer courses for anyone outside the Voluntary Health Association at the present time, individual agencies, namely the Florida Heart Association and Florida Association for Retarded Children have had courses which included physician participation. Physician involvement at the local level continues to receive a great deal of emphasis and is recognized as a vital factor in the local agency's goals and programs. The Council has acted to recommend a survey of component county medical societies of Florida Medical Association to determine liaison committee composition and activities. The survey would uncover information which would subsequently aid in achieving the most productive liaison between the local voluntary health agencies and the medical community.

The Council has maintained liaison with the Florida Voluntary Health Association, the joint state coordinating body, whose membership is composed of executive directors of the voluntary health agencies. The Council participated in the 1970 Annual Voluntary Health Institute at Pier 66 in Ft. Lauderdale.

Recognition Program—One of the primary roles of the Council is recognition of voluntary health agencies which have met the necessary criteria. Recognition is renewed yearly. A new agency, The Leukemia Society of America, has applied for and received approval for recognition. Other agencies currently recognized include:

Florida Chapter, The Arthritis Foundation
Florida Society for the Prevention of Blindness
Florida Division, American Cancer Society
United Cerebral Palsy of Florida
Florida Society for Crippled Children and Adults
Florida Heart Association
Florida Association for Mental Health
National Multiple Sclerosis Society
The National Foundation
Florida Association for Retarded Children
Florida Tuberculosis and Respiratory Disease Association

Other actions by the Council include the following:

1. The Council believes its future role should be one of serving to encourage physician involvement in health agency activity at local level.

2. It was noted that legislation had abolished the Advisory Committee for the Charitable Solicitations Act. The Council offered its services to the Secretary of State as an unofficial advisory council.

3. In considering matters relating to the voluntary health agencies, the Council:

. . . endorsed a five year follow-up study on "Jailing of the Mentally Ill" to determine progress in this area.

. . . approved in principle proposed compulsory immunization legislation.

Report of Board of Governors

Referral by 1970 House of Delegates Plasmapheresis Regulation

Upon recommendation of the Reference Committee, the report of the Board of Governors on

the referral by the 1970 House of Delegates, Plasmapheresis Regulation, was adopted as submitted by the Board.

(See Board of Governors Report, page 46.)

Board Action No. 13
Physician's Assistants

Upon recommendation of the Reference Committee, Board of Governors' Action No. 13 concerning physician's assistants was adopted as printed.

(See Board of Governors Report, page 47.)

Board Action No. 19
Medical Services in State Institutions

Board Action No. 19, Medical Services in State Institutions, was filed, due to the lack of specific information concerning the report involved.

(See Board of Governors Report, page 47.)

Resolution 71-3
Food and Drug Administration
Escambia County Medical Society

The Reference Committee recommended that Resolution 71-3 be amended by deleting in the fifth paragraph (the first "Resolved") the words "That first, the Florida Medical Association go on record as censuring the Food and Drug Administration in general and Dr. Edwards in particular for this precipitous action," and by substituting therefor the words "That the Florida Medical Association disagrees with the precipitous action of the Food and Drug Administration in limiting the use of oral medications (Tolbutamide, Acetohexamide, Chlorpropamide and Tolazamide) in the treatment of diabetes based on inadequate studies . . ."

An additional amendment was moved on the floor, to change the word "debacle" near the end of the same paragraph to "incidence."

There was discussion, and the amendment from the floor was not adopted.

The amendment recommended by the Reference Committee was adopted, and Resolution 71-3 was adopted as amended.

Resolution 71-3

Food and Drug Administration

Whereas, In October, 1970, Dr. Charles C. Edwards, Commissioner of Food and Drugs, Food and Drug Administration, U.S. Department of Health, Education and Welfare, did issue a "current drug information" bulletin quoting joint review of the University Group Diabetes Program study by the Council on Drugs of the American Medical Association, a committee of the American Diabetes Association, and the Food and Drug Administration and did thereby state that the FDA recommended "that the use of Orinase (Tolbutamide) and other sulfonyl urea type agents, Dymelor (acetohexamide), Diabinese (chlorpropamide), Tolinase (tolazamide) should be limited to those patients with symptomatic adult onset non-ketonic diabetes mellitus which cannot be adequately controlled by diet or weight loss alone and in whom the addition of insulin is impractical or unacceptable," and

Whereas, Dr. Charles C. Edwards did further state in this same bulletin that, as a result of this study, "all oral hypoglycemic agents should be employed with caution and, if prescribed, then only when serious application of diet, or diet plus insulin, has proven ineffective in the judgment of the physician," and

Whereas, Following release of the full report as a supplement to "Diabetes," the Journal of the American Diabetes Association, in December, 1970, a large majority of the leading authorities on the treatment of diabetes in the United States, the British Medical Association, the Canadian Medical Association, and other leading diabetologists in England, Sweden and elsewhere, have effectively contradicted the validity of the design of the study, its results, and the interpretation thereof, and

Whereas, Dr. Edwards was, at the least, precipitous in the issuance of the aforesaid bulletin and did, by so issuing it, cause inexcusable difficulties for the practicing physicians in the United States and untold amounts of confusion and anxiety in the thousands of diabetic patients being so treated. Be it therefore

RESOLVED, That the Florida Medical Association disagrees with the precipitous action of the Food and Drug Administration in limiting the use of oral medications (Tolbutamide, Acetohexamide, Chlorpropamide and Tolazamide) in the treatment of diabetes based on inadequate studies; and second, that the Florida Medical Association delegation present to the American Medical Association an appropriate resolution in the same vein; and, third, the Florida Medical Association present to the American Medical Association a companion resolution recommending a legislative inquiry into the policy-making mechanisms of the FDA and a definition of its powers to avoid a similar debacle in the future.

Resolution 71-9
Liaison with Florida Pharmaceutical Association

FRANCIS T. HOLLAND, *Delegate*

Resolution 71-9, Liaison with Florida Pharmaceutical Association, was adopted as submitted.

Resolution 71-9

Liaison with Florida Pharmaceutical Association

Whereas, The responsibility of compounding and dispensing of drugs has been entrusted to the pharmacy profession, and

Whereas, This very important privilege has been proselyted and relegated to a position of inadequacy as to space, drugs available, and facilities for compounding, by merchandising outlets which operate under the guise of the time honored name of pharmacy, therefore be it

RESOLVED, That the FMA Committee on Pharmacy establish a liaison with the Florida Pharmaceutical Association to study this situation with the aim of protecting patients by restoring professionalism, the adequacy of drug dispensing retail establishments, and guarding the ethics of both pharmacists and pharmacies.

Dr. Coulter: "The chairman wishes to express his appreciation to all of the members who appeared before our Committee and to the members of the Committee who worked so diligently.

"I move the adoption of the report of Reference Committee No. II as a whole as amended." It was adopted.

"Mr. Speaker, this concludes the report of Reference Committee No. II."



Past Presidents of FMA, Drs. William C. Roberts and John D. Milton, chat with Dr. Hurt.

Report of Reference Committee No. III
Finance and Administration

Dr. Rufus K. Broadaway, Chairman of Reference Committee No. III, Finance and Administration, came forward to present the report of the Reference Committee.

Report of the Board of Governors

The Reference Committee complimented the publication of the Executive Vice President's Newsletter (Board Action No. 3) as a valuable communications medium of the Association.

The Reference Committee also commended Mr. W. Harold Parham, Executive Vice President, for his outstanding services to the Association over the past years.

The Reference Committee recommended that Recommendation No. 1 of the Board of Governors be adopted.

It was adopted.

The Reference Committee recommended that the portion of Recommendation No. 2 which, if adopted, would change the name of the official publication of the Florida Medical Association to "Florida Medicine," be adopted, with the stipulation that the identification that the publication is the official "Journal of the Florida Medical Association" shall continue to be indicated in printing on the front page of the publication.

Upon request for clarification, it was determined that by the term "front page," the Reference Committee was referring to the *cover* of the *Journal*.

An amendment to the Reference Committee's recommendation was moved from the floor, to substitute for "front page" the words: "first page inside the cover or on the masthead rather than on the cover."

There was discussion; a motion was made to table any action on the change in the name of the official publication of the Association; the motion carried; and the subject was tabled.

The Reference Committee recommended a change in wording in the proposed by-laws amendment outlining the composition of the Board of Governors, so as to comply with Sturgis' Standard Code of Parliamentary Procedure. The change proposed was to substitute the term "advisory" for "non voting" wherever it appeared.

The amendment recommended by the Reference Committee was adopted.

Recommendation No. 2 of the Board of Governors, which consisted of proposed by-laws amendments, was adopted as amended with the exception of those portions referred to in the preceding motion to table.

The report of the Board of Governors was adopted as amended.

Report of Board of Governors

James T. Cook, *Chairman*

Four sessions of the Board of Governors have been held since the 1970 Annual Meeting of the Florida Medical Association. Dates of these meetings were May 10, 1970; October 1-3, 1970; January 16-17, 1971; and March 28, 1971. Most of the Board sessions were preceded by meetings of the Executive Committee.

Before proceeding with the Board's official report and recommendations, your chairman wishes to recognize the dedicated efforts of FMA's officers, other members of the Board, committee and council chairmen and members. Without the complete cooperation of these interested physicians, it would have been impossible to carry out the programs and responsibilities of the Association.



Reference Committee III personnel were Drs. Ray E. Murphy Jr., Thomas M. Caswall, Richard G. Connar and Rufus K. Broadaway (Chairman). Wanda Bain was recording secretary.

MAJOR ACTIVITIES

Annual Meeting.—The scientific program for the 1971 Annual Meeting was arranged once again by the Committee on Scientific Assemblies in cooperation with our various specialty societies. The Board approved the format for the 1971 meeting, including a third session of the House of Delegates that was added at the 1970 Annual Meeting. This additional session proved its worth, and the policy is continued at this year's meeting.

Presidents' and Secretaries' Conference.—Once again, one of the highlights of the Association's year was the Annual Conference of Presidents and Secretaries of County Medical Societies. This year's 13th Annual Conference, held in Orlando on January 30, drew more than 180 persons. The physicians who attended represented approximately 97 percent of the members of the component medical societies of the Florida Medical Association. A January 31 Seminar on State Legislation, arranged in connection with the officers' conference, also proved to be a popular program. Next year's conference will be held in Orlando on January 29, 1972.

Financial Statement and Budget.—The Board reviewed the financial statement prepared by the Executive Vice President, and approved the auditor's statement presented by the Secretary-Treasurer and prepared by Lucas, Herndon, Harms and Hyers, Certified Public Accountants of Jacksonville, for the Association's fiscal year (calendar year 1970). The Association's income from all sources was $535,929.66; expenses totaled $472,865.04, for an excess of $63,064.62 in income over expenses. These figures do not include funds expended for equipment and interest paid, since these were carried under fixed assets of the Association.

The Board approved a budget of $556,500 for calendar year 1971, which is the anticipated income from all sources. In compliance with the bylaws, the budget was prepared by the Executive Vice President in consultation with the Secretary-Treasurer. Subsequently, it was reviewed by the Executive Committee and approved by the Board of Governors.

Copies of the CPA audit are available to the appropriate Reference Committee and are on file in the Association's office for review by members of the FMA.

Appointments.—The Board of Governors appointed Francis T. Holland, M.D., as the AMA Delegate to serve on the Board of Governors; Eugene G. Peek Jr., M.D., as the State Board of Health representative on the Board of Governors; and approved the appointment of Jack Q. Cleveland, M.D., as the optional member of the Executive Committee, and as public relations officer. Clyde M. Collins, M.D., was appointed editor of *The Journal of the Florida Medical Association*. The Board approved Dr. Collins' nominations of Oscar W. Freeman, M.D., and William M. Straight, M.D., to be associate editors; and the nominations of Colin Kendall, M.D., Willard E. Manry Jr., M.D., and Edward N. Willey, M.D., to be assistant editors. The Board's associate editor appointee is Richard M. Fleming, M.D. The Board reappointed the Committee on Research, with Karl B. Hanson, M.D., as chairman.

In 1970, the House of Delegates directed that a study be made of the organizational structure of the FMA. Accordingly, an ad hoc Committee to Consider the Structure of the FMA has been appointed. The Board of Governors appointed Robert E. Zellner, M.D., of Orlando as chairman.

Formation of the Joint Commission on Medical Education and the ad hoc Committee on Drug Abuse also was authorized by the House last year. The Board subsequently appointed Henry R. Cooper, M.D., of Ft. Lauderdale to chair the Commission, and Robert P. Johnson, M.D., of Tallahassee to head the drug abuse group.

The Board itself established an ad hoc Committee on Liaison with Medical Students, with Billy Brashear, M.D., of Gainesville as chairman.

The following other committee chairmen were appointed: William P. Clarke, M.D., of Jacksonville, Inter-American Relations; Millard P. Quillian, M.D., of Bradenton, Quackery; Carl E. Andrews, M.D., of West Palm Beach, Venomous Snake Bite; and Joseph G. Matthews, M.D., of Orlando, Workmen's Compensation.

The Board appointed the Committee on National Legislation and Key Contact Physicians for 1971.

James T. Cook, M.D., was nominated by the President-Elect and approved by the Board for appointment as the FMA representative on the FLAMPAC Board of Directors. Clyde M. Collins, M.D., was appointed to another four-year term as one of the FMA's four representatives on the Board of Directors of FRMP, Inc.

Also approved by the Board were a number of nominations for gubernatorial appointment to such agencies as the State Advisory Council on Community Medical Facilities, Advisory Hospital Council, the Medical Advisory Committee to the Division of Vocational Rehabilitation, and the Florida State Board of Medical Examiners.

RECOGNITION

The Board reviewed nominations received from county medical societies and selected the recipient of the A. H. Robins Company Award "For Outstanding Community Service by a Physician." This award will be presented at the first session of the House of Delegates on May 5, 1971. Award nomination will be included in the Delegates' Packets.

NOMINATIONS

The Board's nomination for recipient of the Certificate of Appreciation will be included in the Delegates' Packets for presentation at the first meeting of the House of Delegates.

Committee on Membership and Discipline.—Under the provision of the Bylaws, the Board nominates the following physicians for appointment to the Committee on Membership and Discipline for terms ending in 1975:

District 1—William F. Brunner, M.D., Marianna
District 2—Charles E. Barrineau, M.D., Palatka
District 3—Hugh A. Carithers, M.D., Jacksonville
District 4—Carroll M. Crouch, M.D., Daytona Beach
District 5—Frank C. Bone, M.D., Orlando
District 6—Linus W. Hewit, M.D., Tampa
District 7—Gordon H. McSwain, M.D., Arcadia
District 8—John P. Ferrell, M.D., St. Petersburg
District 9—Myrl Spivey M.D. West Palm Beach
District 10—Miles J. Bielek, M.D., Ft. Lauderdale
District 11—Harold Rand, M.D., Miami
District 12—J. Lee Dockery, M.D., Miami

Blue Shield Board of Directors.—The Blue Shield Nominating Committee presented a list of nominations for certification for election to the Blue Shield Board of Directors. The Board of Governors selected from the list two nominees for each physician seat on the Blue Shield Board. The list is as follows:

Medical District A:	Frank B. Hodnette, M.D.
	James W. Walker, M.D.
Medical District C:	L. Myrl Spivey, M.D.
	Joseph G. Matthews, M.D.
Medical District D:	M. Eugene Flipse, M.D.
	Milton E. Lesser, M.D.
At Large:	Robert E. Zellner, M.D.
	W. Merrill C. Wilhoit, M.D.

The lay members nominated by the Nominating Committee and approved by the Board are as follows:

Medical District C:	William V. Roy
At Large:	H. P. Osborne, Jr.

REFERRALS BY HOUSE OF DELEGATES

The Board conducted a review of the proceedings of the 1970 sessions of the House of Delegates. Items requiring study and report were referred to the appropriate committees and councils. Some matters required Board action only. The individual actions regarding the policies of the House of Delegates appear in the various council reports as well as in this report.

Resolution 70-17—Aid to Medical Education.—This resolution was referred to the Council on Scientific Activities. While there is need for more scholarships and loans for medical students, additional study is needed with respect to the method advocated in this resolution.

RECOMMENDATION

It is the recommendation of the Board that: 1) Resolution 70-17 remain under study; 2) The State Board of Medical Examiners *not* be utilized as a mechanism for receiving funds for any state scholarship program, and 3) the Deans of the Medical Schools be requested to take up the need for additional scholarships and loans with the students and report back their findings. (R.C. I)

Council on Medical Services Recommendation No. 3, Plasmapheresis Controls Legislation.—This matter was referred to the Committee on Blood for study. The committee hopes that a forthcoming meeting with representatives of the Board of Medical Examiners and the Division of Health will produce some results. (R.C. II)

Private Pilots Participation in Association's Insurance Program.—In 1970, the House of Delegates approved the inclusion of private pilots in the FMA's insurance program and referred the matter to the Board for implementation. However, after investigation, the Board is of the opinion that such travel accident coverage for physicians flying as private pilots on Association business is not feasible. The minimum premium would be $225 per year, and to implement such coverage would necessitate the FMA keeping a complete log of all hours flown by FMA members on Association business.

RECOMMENDATION

In lieu of this coverage, your board recommends that these physician-pilots provide their own trip insurance and seek reimbursement for the cost, but this reimbursement should not exceed $5.00 per trip. (R.C. V)

1970 Board Action No. 28, Board of Medical Examiners.—The Board of Medical Examiners has advised the Judicial Council that it has funds available to meet the expenses of investigations, specifically the travel, meals and lodging expenses of members of the Membership and Discipline Committee who participate in official investigations for the examining board as sworn deputies.

Resolution 70-14—Relative Value Guide.—This resolution was referred by the House of Delegates to the Board, which in turn referred it to the Committee on Relative Value Studies. This committee has the subject of Resolution 70-14 under study.

RECOMMENDATION

The Board of Governors concurs in the recommendation of 1970 reference committee that this resolution be disapproved. This judgment is based upon information from the Committee on Relative Value Studies that a survey is being done, has been the method of choice of the Florida Medical Association and would be redundant in the light of present policies of the FMA. (R.C. V)

Resolution 70-19—Specialty Group Representation, and Resolution 70-1—Restructuring of FMA.—Recommendations of the ad hoc Committee to Study the Structure of the FMA and their endorsement by the Board are included in that Committee's report to the House of Delegates.

Licensure by Endorsement.—The Board does not favor amending the Medical Practice Act to provide for medical licensure by endorsement. However, it recognizes that within the State Legislature there is a strong movement toward some degree of reciprocity with other states.

RECOMMENDATION

The Board of Governors recommends that FMA approve licensure of physicians by limited reciprocity or certification to the extent that only physicians who pass part III of the National Boards or the FLEX examination within the eight-year period immediately preceding application for licensing are eligible. In any event, the Board of Medical Examiners should retain discretionary authority to require any applicant to submit to the regular written examination. (Amended-R.C. IV)

Legislation to Define the Practice of Medicine.—The House of Delegates referred to the Board of Governors a proposal that FMA sponsor an amendment to the Medical Practice Act that will "more adequately and fully define the practice of medicine," etc.

RECOMMENDATION

The Board of Governors recommends that a definition of the practice of medicine not be included as part of the FMA program for 1971. (R.C. IV)

Board Actions of Major Importance

1. Workmen's Compensation.—The Florida Division of Labor and Employment Opportunities put into effect a new Workmen's Compensation fee schedule on February 15. This resulted from a hearing conducted on January 4 before Division Director J. W. Peebles at the request of the FMA. In the opinion of the Board of Governors, the fee schedule placed in effect on February 15 is inadequate. At the direction of the Board, a petition for another hearing was filed in March. (See report of the ad hoc Committee on Workmen's Compensation.) (R.C. V)

2. Liaison with Gov. Reubin Askew.—Representatives of the Association met with Gov. Reubin Askew in Tallahassee on February 18, 1971, to discuss matters of concern to the FMA. Among several subjects on the agenda, a proposal for formation of a Governor's Steering Committee on Health was agreed to.

3. Executive Vice President's Newsletter.—A newsletter of limited distribution entitled the "Gray Paper" began publication during the year. It is distributed from the office of the Executive Vice President to committee and council chairmen, component society officers, and others.

4. "Polititthon."—The FMA participated in the television feature "Polititthon '70" through its vice president, Richard C. Dever, M.D., of Miami. The Board has authorized continued FMA participation in these educational telecasts.

5. Congressional Visit.—Several FMA members attended the AMA-AMPAC Public Affairs Workshop in Washington, D.C., March 13-14, and then participated in the annual visit with members of Florida's congressional delegation and congressional luncheon.

6. Florida Medical Insurance Trust.—The Board took several actions with respect to the Florida Medical Insurance Trust (F.M.I.T.). Physicians who become disabled will be allowed to continue to participate in the entire program until they reach the age of 65 or become eligible for Medicare benefits. Eligibility for coverage was opened to interns and residents, provided they hold some type of membership in their county medical societies and in the FMA. The Board reappointed the special committee to study the overall program on a long-range basis particularly as it pertains to new enrollment periods. (R.C. V)

7. Procedures for Approving Allied Health Training Courses.—The Board adopted a program for approving

or endorsing programs in the new or emerging healtb professions. Endorsements granted at each of the three levels are subject to annual review. The first step, *Procedural endorsement,* may be granted for programs with apparent merit which are in the planning or development state. *Provisional endorsement* may be granted to programs wbich bave students actually enrolled. *Full endorsement* is reserved for programs whose students have been evaluated to the complete satisfaction of the FMA, or for programs whicb bave been established in other regions with evaluations meeting the standards of the Association.

8. Comprehensive Health Planning.—The Board adopted the position that legislation governing Comprebensive Health Planning must include protection of the consuming public and physicians by utilization of tbe local health planning councils and the medical profession in the determination of the certificate of need and at all levels of tbe appeals process; and that the certificate of need not be mandatory unless tbere is to be use of government funds; and further, that this policy be followed until such time as the membership of comprehensive bealth planning councils is composed of an adequate number of professional, knowledgeable members who are competent to make such a determination of need. (R.C. IV)

9. Legislative Objectives.—At the request of the Committee on State Legislation and the Council on Legislation and Public Agencies, the Board authorized the publication of a pampblet entitled "Legislative Objectives—1971." The intent of this publication was to provide information to interested persons, particularly members of the Legislature, relative to FMA's 1971 Legislative program. (R.C. IV)

10. Directors of Divisions of Health and Mental Health.—Word reached the Board that the positions of Drs. William D. Rogers and Wilson T. Sowder were in doubt in the new state administration. The Board took note of the two physicians' exemplary service through the years—Dr. Sowder as Director of the Division of Health and Dr. Rogers as Director of the Division of Mental Health. Tbe Board urged Governor Askew to continue the services of these two officials, which he agreed to do.

11. Libel Insurance.—It was brought to the attention of the Board that many component medical societies, particularly tbe smaller ones, would be hard pressed to pay the deductible portion of any libel judgment rendered in connection with peer review activities. Accordingly, the Board committed the FMA to assist county medical societies to a maximum of $10,000 with the deductible under tbeir libel insurance policies.

12. Amended Agreement with Blue Shield.—The Board voted to approve an amended agreement between the Florida Medical Foundation and Blue Shield for peer review of Blue Shield and Medicare claims. (R.C. V)

13. Physician's Assistants.—A number of statements regarding physician's assistants were adopted by the Board. These may be found in the report of the Council on Allied Professions and Vocations. The following definition of a physician's assistant was adopted:

> "Tbe pbysician's assistant is a skilled person qualified by academic and practical training to provide patient services under the supervision and direction of a licensed physician who is responsible for the performance of tbat assistant." (R.C. II)

14. Lay Laboratories.—Various questions concerning lay laboratories were considered by the Board. Noting that the FMA has no jurisdiction over these facilities, the Board adopted a Judicial Council recommendation concerning their regulation. Subsequently, the Board asked the Division of Health to include regulations governing tbe circulation of fee schedules in the rules and regulations for licensure of lay laboratories. Tbe Board also voted to continue the present policy regarding lay laboratory-sponsored exbibits at the FMA Annual Meeting and advertising in the *Journal.*

15. Policy Statement on Medicaid.—The Board adopted a policy statement on Title XIX (Medicaid) submitted by tbe Committee on State Legislation as follows: "1. In view of an emergency shortage of funds in the Title XIX program, any new funds should emphasize outpatient services, and these outpatient services should not contain a unit limitation of $100 per recipient as currently exists. 2. Increased funding is recommended for the nursing home facilities portion of the Medicaid program. 3. Because of a scarcity of funds, present services provided in tbe program should not be expanded." The Legislature, in special session, provided a deficiency appropriation to meet the Medicaid emergency. In a later meeting, the Board of Governors adopted the following motion: "That the Association once again request the appropriate state agency to pay physicians' usual and customary fees for care of Medicaid recipients until the appropriations are exhausted, and stop expecting physicians of Florida to subsidize the State of Florida in the care of these patients." (Amended-R.C. IV.)

The Board of Governors is authorized by the House of Delegates to institute legal or other action, as feasible, to enforce these recommendations. (Amendment added from floor of House—R.C. IV.)

16. Redefinition of Chiropractic.—The Board is aware of the aims of chiropractors to win inclusion in Medicaid and other health insurance programs by legislative action. The Committee on State Legislation believes that in order to repel these efforts, the FMA must have an offensive weapon to use in the Legislature. Accordingly, the Board of Governors has granted the committee greater flexibility in its support of any legislation that may be introduced to redefine chiropractic. (R.C. IV)

17. Professional Liability.—The Board approved the framework for the legislative effort toward obtaining relief in the area of professional liability. The effort will focus on a reduction in the statute of limitations and adoption of tbe concept of "advance payment without admission of guilt." (R.C. IV)

18. Withholding of Medicare Payments to Physicians.—The Board of Governors took note of the policy of the Social Security Administration of withholding Medicare payments to physicians undergoing peer review. The Board condemned this practice, and has under consideration the possibility of legal action challenging the SSA's authority to suspend tbese payments. (R.C. V)

19. Medical Services in State Institutions.—The Council on Medical Services was requested to assist the Florida Division of Healtb in a study of medical services in state institutions. The study was completed and a summary report of findings was transmitted to tbe state through the President of the FMA. (R.C. II) (Filed.)

20. Vocational Rehabilitation-Blue Shield.—The Board considered a problem which occasionally arises in which a Vocational Rehabilitation client has a Blue Shield service benefits contract. Notice was taken of an FMA policy promulgated by the House of Delegates in 1967, to wit: "That when an individual becomes a ward of the government, he is no longer considered an indigent patient." The Board adopted a policy that "where service benefits are involved and the government takes the responsibility for the patient's care, the service benefit provision no longer applies."

21. Utilization Review.—The Board took a position with respect to reimbursement for physicians who serve on medical staff utilization review committees. Policy was established to the effect that reimbursement to physicians who serve on medical staff utilization review committees in profit-making hospitals is proper; that no reimbursement should be made if service on the committee is part of medical staff functions in a non-profit hospital; and that this policy should not apply to peer medical utilization review. (R.C. V)

22. FRMP Fiscal Agent.—The Board recommended to the Board of Directors of the Florida Medical Foundation that the Foundation terminate its function as fiscal agent for the Florida Regional Medical Program, Inc. The Foundation was relieved of these duties as of February 28, 1971.

23. FMA Liability for Accident Damages.—The Association's liability for accident damages to members engaged in the official business of the FMA was a matter of concern to the Board of Governors. Accordingly, tbe Board moved "to adopt the policy concerning FMA liability for the attendance by members of the Florida Medical

Association at any meetings of its House of Delegates, Board of Governors, Executive Committee, Councils and Committees, or any other meetings or conferences of any nature, the responsibility of such member for travel to and from such meeting is the member's sole responsibility, and any such member shall not be considered to be involved in or to be performing any business of or for FMA except and only during the time he is physically present in an official meeting room of the committee, council, executive committee, board of governors, or house of delegates in which he is participating as such member."

24. AMA Membership.—The number of FMA members who also hold membership in the American Medical Association was a matter of concern to the Board during the year. In recent years, FMA has had five AMA delegates, based on a membership of more than 4,000. In the early part of last October, Florida's AMA membership stood at 4,972. If a total of 5,001 in AMA members could be reached by December 31, 1970, Florida would be alloted a sixth AMA delegate. The Board initiated an intensive membership campaign directed through county societies. The membership drive was successful, and FMA will elect the sixth delegate during this annual meeting.

25. Model Medical Staff Bylaws.—The Committee on Hospitals and Extended Care Facilities drafted a Model Medical Staff By-Laws and Rules and Regulations. These were approved by the Board.

26. Annual Meeting Program.—This year, as in past years, the scientific program for the Annual Meeting was not completed until a late date. Accordingly, the Board is asking the Committee on Scientific Assemblies and specialty groups to start plans early to enable the committee to submit the scientific program to the Board at its fall meeting so promotion of the meeting program may begin in January each year. (R.C. I)

27. Foundations for Medical Care.—The "foundation concept" led to Board action 1) adopting criteria for the approval and chartering of foundations for medical care; 2) approving the new Foundation for Medical Care in Duval County, Inc., pending its adoption of acceptable bylaws; and 3) suggesting that the Florida Medical Foundation assist in the coordination of the various foundations in the state. In addition, the Board decreed the formation of an ad hoc Committee on Foundations for Medical Care. This committee will be composed of the presidents of all approved foundations for medical care in Florida.

28. Annual Meeting Registration Fee.—The Board adopted a $25 registration fee for non-member physicians attending the annual meetings of the FMA, effective with this meeting. Subject to payment of the fee will be those physicians who are not AMA or FMA members, and who are not attending the meeting as invited guests of FMA. Interns and residents, and guest speakers will be excused from payment of this fee.

29. Department of Health and Rehabilitative Services.—The Board studied the present organization and functions of the Florida Department of Health and Rehabilitative Services. The Board favors the establishment of a separate Department of Health, to include such agencies as Division of Health and Mental Health, Vocational Rehabilitation, Bureau of Crippled Children, Council for the Blind, and other health-related agencies.

30. Resolution 70-10—"More than Allowable Charge."—Blue Shield has reported to the Board on efforts to have the phrase "more than allowable charge" on Medicare notices changed. The Social Security Administration has agreed to a change, but the wording is indefinite at this time; therefore, the matter remains under the surveillance of the Board. (R.C. V)

31. Physicians' Image Survey.—Blue Shield has proposed to undertake a survey of all physicians in Florida to determine if it might be of assistance in improving the image of the medical profession. The Board agreed that the questionnaire for the time being be sent only to members of the FMA House of Delegates and their alternates so that the results will be available for the Blue Shield Annual Meeting. The questionnaire could later be distributed to the entire FMA membership, if the House so chooses. (R.C. V)

32. Social Security Medical Care Directives.—The autocratic method in which the Social Security Administration issues directives regarding medical care from its offices in Washington and Atlanta has been a source of continuing irritation to many members of the FMA. The Board of Governors has voted to protest to this objectionable attitude in writing, with copies to members of the Florida congressional delegation. (R.C. V)

33. Outpatient Insurance Payments.—The Board has asked the Blue Shield Board of Directors to provide contracts covering outpatient services in cases where subscribers purchase Blue Cross contracts paying for these services. (R.C. V)

34. Blue Shield.—The Board of Governors considered in detail relationships among Blue Shield, the federal government and the physicians of Florida in regard to the Medicare plan. The Council on Medical Economics suggested, and the Board agrees, "if measures are not taken by Blue Shield to resolve the differences between the federal government with the physicians of Florida, which in our opinion threaten to totally destroy the physicians' support and thus Blue Shield, that serious consideration be given to implementing the mechanics necessary to cancel the contract between the Department of Health, Education and Welfare and Blue Shield of Florida, Inc., as carrier, relative to Section 1842 of the Social Security Act." (R.C. V)

35. Abortion.—The Committee on State Legislation and the Board of Governors have considered the role the Association should play this year with respect to legislation to liberalize the abortion law. It was decided that the FMA position should be one of support rather than sponsorship. (R.C. IV)

36. Executive Vice President.—The Board received a report from the Executive Vice President outlining the reorganization of the executive offices and renewed for a period of ten years the contract of employment dated January 12, 1964, with W. Harold Parham, Executive Vice President.

37. Lawsuits.—The Board of Governors has followed closely the suit against the Association brought by two osteopaths under the Sherman Antitrust Act requesting triple punitive damages. The Association received a favorable ruling in the federal district court in Tampa; and the case is now on appeal in the 5th Circuit Court of Appeals in New Orleans. This court has requested an advisory opinion from the Florida State Supreme Court.

The Association is currently defending a suit jointly with The Employers' Group of Insurance Companies brought by a member of the Association in Dade County regarding denial of professional liability insurance coverage.

RECOMMENDATIONS

1. **That the FMA oppose dropping the ECFMG certificate requirement for Florida licensure of graduates of foreign medical schools.**
2. **After careful consideration, the Board of Governors recommends to the House of Delegates the following amendments to the current By-laws of the Florida Medical Association, Inc.:**

a) CHAPTER I, MEMBERSHIP—SECTION 2: CLASSIFICATIONS
 1) Under "Associate Members," #1, delete the words "former active," so that the paragraph reads:
 "1. Members who have completely and permanently retired from active practice, either through choice or through disability."

b) CHAPTER IV, HOUSE OF DELEGATES
 1) Amend Section 1, Designation and Composition, by deleting the last phrase which reads ". . : and the officers of the Association as defined in these By-Laws," and by adding in its place "and the Speaker and Vice Speaker of the House," so

that the paragraph reads:

"The House of Delegates is the legislative and business body of the Association, and its members are the delegates officially elected by the component societies in accordance with the provisions of these By-Laws AND THE SPEAKER AND THE VICE SPEAKER OF THE HOUSE."

2) Amend Section 6, Determination of Delegates, second paragraph, by deleting the phrase ". . . the officers and the members of the Board of Governors," so that the sentence will read:

". . . In addition to the delegates from the county medical societies, the members of the Council on Specialty Medicine shall be members of the House of Delegates."

3) Amend Section 14, Privilege of Floor, to read:

"The privilege of the floor shall be restricted to seated delegates, OFFICERS, MEMBERS OF THE BOARD OF GOVERNORS, AMA delegates, past presidents, and AMA past presidents who are FMA members, except by permission of the presiding officer."

c) CHAPTER VI, OFFICERS AND DELEGATES TO HOUSE OF DELEGATES OF AMERICAN MEDICAL ASSOCIATION

1) Amend Section 9, Delegates to House of Delegates of American Medical Association, by adding a new paragraph to read:

"THE DELEGATES TO THE HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION, ALONG WITH THEIR DULY ELECTED ALTERNATES, SHALL COMPRISE A SPECIAL STANDING COMMITTEE OF THE BOARD OF GOVERNORS, RESPONSIBLE DIRECTLY TO THE EXECUTIVE COMMITTEE, BOARD OF GOVERNORS AND FMA HOUSE OF DELEGATES."

d) CHAPTER VII, BOARD OF GOVERNORS

1) Amend Section 1, Composition, to read:

"The Board of Governors shall consist of the President, President-Elect, Vice President, Secretary, Treasurer, the two immediate past presidents, one of the delegates to the House of Delegates of the AMA (who shall be appointed by the President), and five members appointed by the President. The President shall appoint one member from each of the four medical districts with staggered terms, and thereafter they shall be appointed for four years as each term expires; he shall also appoint each year one member at large for a term of one year.

"The President shall designate, with the approval of the Board, one member to serve as a Public Relations Officer.

"The Board at its discretion MAY SELECT TO SERVE ON THE BOARD OF GOVERNORS IN AN ADVISORY CAPACITY, FOR A TERM OF ONE YEAR EACH, A REPRESENTATIVE FROM THE FLORIDA DEPARTMENT OF HEALTH AND REHABILITATIVE SERVICES, FROM THE STATE BOARD OF MEDICAL EXAMINERS AND FROM THE BOARD OF DIRECTORS OF BLUE SHIELD OF FLORIDA, INC., ALL OF WHOM MUST BE MEMBERS OF THE ASSOCIATION.

"THE SPEAKER OF THE HOUSE OF DELEGATES SHALL BE AN ADVISORY MEMBER OF THE BOARD OF GOVERNORS."

2) Amend Section 6, Executive Committee, Item 2, by adding another paragraph to read:

"THE EXECUTIVE COMMITTEE SHALL MAINTAIN LIAISON WITH AND SERVE IN AN ADVISORY CAPACITY TO THE WOMAN'S AUXILIARY TO THE FLORIDA MEDICAL ASSOCIATION."

e) CHAPTER VIII, COUNCILS

1) Amend Section 2, Composition, Selection and Appointment to Fill Vacancy, by changing the last sentence of the paragraph to read:

"The President shall appoint annually a chairman AND A VICE CHAIRMAN WHEN INDICATED of each Council."

2) Amend Section 3, Duties and Functions, by deleting Item 2 in its entirety which outlines the duties and composition of the Judicial Council, and renumber the remaining items accordingly.

3) Amend Section 3, Duties and Functions, Item 7, by deleting reference to advisory to Woman's Auxiliary and AMA delegates, so this section will read:

"The Council on Special Activities shall maintain liaison with and coordinate the activities of the Board of Past Presidents, and the accumulation and maintenance of archives records of the Association."

4) Add a new Section 4, to be entitled "Judicial Council," to read:

"SECTION 4. JUDICIAL COUNCIL.

"1. COMPOSITION. THE JUDICIAL COUNCIL SHALL CONSIST OF FIVE MEMBERS ELECTED BY THE HOUSE OF DELEGATES UPON HAVING FIRST BEEN NOMINATED BY THE BOARD OF GOVERNORS, ONE FROM EACH OF THE FOUR MEDICAL DISTRICTS AND ONE FROM THE STATE AT LARGE, ON A STAGGERED BASIS SO THAT ONE MEMBER'S TERM EXPIRES EACH YEAR, AND THEREAFTER FOR FIVE YEAR TERMS EACH. THE HOUSE OF DELEGATES MAY REJECT A NOMINEE BUT MAY NOT INITIATE THE NOMINATION.

"2. ELIGIBILITY. TO BE ELIGIBLE FOR NOMINATION FOR ELECTION TO THE JUDICIAL COUNCIL, A MEMBER MUST HAVE BEEN A MEMBER OF THE FLORIDA MEDICAL ASSOCIATION FOR AT LEAST TEN YEARS, AND HIS NOMINATION MUST HAVE THE CONCURRENCE OF THE COUNTY MEDICAL SOCIETY IN WHICH HE HOLDS MEMBERSHIP.

"NO MEMBER MAY SERVE ON THE JUDICIAL COUNCIL FOR MORE THAN TWO CONSECUTIVE FIVE YEAR TERMS.

"3. DUTIES AND FUNCTIONS. THE JUDICIAL COUNCIL SHALL DIRECT AND SUPERVISE THE ACTIVITIES OF THE ASSOCIATION WHICH PERTAIN TO QUESTIONS OF MEDICAL ETHICS, DISSENSION AND DISPUTES REFERRED TO THE ASSOCIATION FOR INVESTIGATION AND ADJUDICATION, COMPLAINTS BY PATIENTS AGAINST MEMBERS OF THE ASSOCIATION AND QUESTIONS OF MEMBERSHIP AND DISCIPLINARY ACTION. IN THE CARRYING OUT OF THESE ACTIVITIES, IT SHALL HAVE THE SAME AUTHORITY AS OTHER COUNCILS TO DELEGATE AND REFER MATTERS TO THE COMMITTEES UNDER IT FOR CONSIDERATION AND RECOMMENDATIONS, EXCEPT THAT THE CHAIRMEN OF THESE COMMITTEES SHALL NOT BE MEMBERS OF THE COUNCIL UNLESS SO ELECTED BY THE HOUSE OF DELEGATES. THE COUNCIL SHALL RECEIVE REPORTS AND RECOMMENDATIONS FROM ITS COMMITTEES AND SHALL IN TURN REPORT THEIR ACTIVITIES TO THE BOARD OF GOVERNORS.

"THE PRESIDENT SHALL ANNUALLY DESIGNATE ONE OF THE ELECTED MEMBERS OF THE COUNCIL AS ITS CHAIRMAN; ONE AS ITS VICE CHAIRMAN; AND ONE AS THE CHAIRMAN OF THE COMMITTEE ON MEMBERSHIP AND DISCIPLINE. THE COUNCIL SHALL FROM AMONG ITS MEMBERS DESIGNATE ONE MEMBER TO SERVE AS LIAISON WITH THE STATE BOARD OF MEDICAL EXAMINERS FOR LICENSURE POLICIES AND PROCEDURES, AND IT SHALL DESIGNATE ONE OF ITS MEMBERS TO ASSUME RESPONSIBILITY FOR HANDLING COMPLAINTS AND GRIEVANCES RECEIVED FROM THE GENERAL PUBLIC AGAINST MEMBERS OF THE ASSOCIATION. MEMBERS SO SELECTED BY THE COUNCIL SHALL REPORT REGULARLY TO THE FULL COUNCIL, AND THE COUNCIL IN TURN SHALL REPORT REGULARLY TO THE BOARD OF GOVERNORS THROUGH THE EXECUTIVE COMMITTEE."

f) CHAPTER IX, COMMITTEES

1) Amend Section 1, Organization, second paragraph to read:
"The Council on Allied Professions and Vocations: Committees on Dentistry, Law, Medical Technologists, Nursing, Opticians, Pharmacy, Physical Therapy and Rehabilitation, PHYSICIAN'S ASSISTANTS AND Medical Assistants, Podiatry, Medicine and Religion, Veterinary Medicine, and Radiological and Nuclear Medicine Technologists; and other paramedical personnel as approved by the Board of Governors."

2) Amend Section 1, Organization, third paragraph to read:
"The Judicial Council: Committee on Membership and Discipline."

3) Amend Section 1, Organization, sixth paragraph to read:
"The Council on Medical Services: Committees on Aging, ADVISORY TO SELECTIVE SERVICE, Blood, Child Health, COLLEGE HEALTH, Emergency Medical Service, Hearing, Labor, Maternal Health, Mental Health, Mental Retardation, Occupational Health, Public Health AND THE ENVIRONMENT, Rural Health, and Vision."

4) Amend Section 1, Organization, seventh paragraph to read:
"The Council on Scientific Activities: Committees on CONTINUING MEDICAL EDUCATION, Medical Schools, MEDICAL STUDENTS, Regional Medical Program, Research, Scientific Assemblies, and SCIENTIFIC PUBLICATIONS."

5) Amend Section 1, Organization, eighth paragraph to read:
"The Council on Special Activities: Committee on ARCHIVES and Board of Past Presidents."

6) Amend Section 1, Organization, ninth paragraph to read:
"The Council on Specialty Medicine: Committees on Anesthesiology, Dermatology, General Practice, Internal Medicine, NEUROLOGY, Neurosurgery, Obstetrics and Gynecology, Ophthalmology, Orthopedics, Otolaryngology, Pathology, Pediatrics, Plastic Surgery, Psychiatry, Radiology, Surgery, and Urology."

7) Amend Section 2, Composition, Selection and Tenure of Committees, Item 2 under "Special Standing Committees shall be," to read:
"SCIENTIFIC PUBLICATIONS.—The Journal of the Florida Medical Association is the official organ of the Association. It shall be organized and operated in accordance with the provisions established in these By-Laws. (Second paragraph to remain unchanged.)"

8) Amend Section 3, Duties and Functions, Item 6, to read:
"The Committee on SCIENTIFIC PUBLICATIONS shall direct and supervise the publication of The Journal of the Florida Medical Association (remainder of paragraph to remain unchanged.)"

g) CHAPTER X, INCOME AND EXPENDITURES

1) Amend Section 2, Item 6, Exemptions, by adding:
". . . OR FOR GIVING UP PRACTICE FOR A PERIOD OF HUMANITARIAN SERVICE (SUCH AS MEDICAL WORK IN SOUTHEAST ASIA, MEDICAL MISSIONARY WORK, SERVICE WITH PROJECT HOPE, ETC.), PROVIDED THE TERM OF SERVICE IS SIX MONTHS OR LONGER, SUCH EXEMPTION TO BE IN EFFECT FOR THE ENTIRE PERIOD OF THE SERVICE REGARDLESS OF THE AMOUNT OF TIME THE MEMBER REMAINS IN SUCH SERVICE, AND PROVIDED HE REMAINS A MEMBER OF A COUNTY SOCIETY IN FLORIDA."

h) CHAPTER XIV, AMENDMENTS

1) Amend Section 1, By-Laws Amended, to read:
"These By-Laws may be amended by SUBMISSION TO THE BOARD OF GOVERNORS PROPOSED AMENDMENTS, BY THE HOUSE OF DELEGATES, COMPONENT COUNTY MEDICAL SOCIETIES, COUNCILS, OR THE BOARD ITSELF; FOLLOWED BY STUDY BY the Board of Governors, and the report of the Board of Governors shall be submitted to the House of Delegates and the appropriate reference committee. After the report of the reference committee, it shall require a majority vote of the delegates seated to pass such an amendment. THE AMENDMENT AS SUBMITTED TO THE HOUSE OF DELEGATES SHALL NOT BE MODIFIED OR SUBSTANTIALLY ALTERED BY THE REFERENCE COMMITTEE OR BY THE HOUSE. MINOR CHANGES IN GRAMMAR OR PHRASEOLOGY MAY BE MADE, PROVIDED THEY DO NOT ALTER THE INTENT OR PURPOSE OF THE AMENDMENT."

Supplemental Report
Board of Governors

The Reference Committee joined the Board of Governors in its commendation of the Ad Hoc Committee to Study the Structure of the FMA for its efforts, and recommended that the Supplemental Report of the Board of Governors concerning this ad hoc committee be adopted.

A substitute motion was made from the floor, "That the report of the Ad Hoc Committee to Study the Structure of the FMA be received as information, and that a new committee be appointed by the President to study this matter and report back to the next annual session of this Association."

There was discussion, and the substitute motion was not adopted.

The Supplemental Report of the Board of Governors was adopted as submitted.

Supplemental Report of Board of Governors

JAMES T. COOK, *Chairman*

The entire report of the ad hoc Committee to Study the Structure of the FMA begins on page 65 of the Handbook. The Board of Governors' reference to this committee appears at the bottom of page 45 in the Handbook; however, some information was inadvertently omitted, such as the composition of the committee, which was:

Name	Year Born	Age	Years FMA Member
Robert E. Zellner, M.D., Chairman (AMA Delegate, Past President)	1915	55	24
Richard C. Clay, M.D. (Chairman of Ref. Comm. which considered this resolution)	1918	52	18
William J. Dean, M.D. (Member, Board of Governors)	1924	46	15
Joseph C. Von Thron, M.D. (Council Chairman)	1926	44	14
Richard C. Dever, M.D. (Vice Pres., Council Chairman)	1927	43	11
Thomas B. Thames, M.D. (Council Chairman)	1930	40	12
James L. Borland Jr., M.D. (Committee Chairman)	1932	38	5

The Board of Governors thanked the members and the chairman of the ad hoc committee for their excellent work and voted to discharge the committee. The Board has submitted specific By-Laws changes as a part of its report and recommendations to the House to implement each suggestion of the ad hoc committee and concurred in the recommendations of the committee as contained in its report, which included continued study regarding the Council on Specialty Medicine's relationship to the House of Delegates.

Subcommittee on Inter-American Relations

Upon recommendation of the Reference Committee, the report of the Subcommittee on Inter-American Relations was adopted as printed.

Subcommittee on Inter-American Relations

WILLIAM P. CLARKE, *Chairman*

The Subcommittee on Inter-American Relations has had no activity in the past year. Present considerations regard the development of training seminars in conjunction with Florida physicians and medical groups in the Caribbean and in Latin America. There is a mutual exchange of teaching.

Ad Hoc Committee to Study the Structure of the FMA

Recommendation No. 1 of the Ad Hoc Committee to Study the Structure of the FMA was adopted.

Recommendations No. 1, 2 and 3 at the end of the Ad Hoc Committee's report were adopted.

Upon recommendation of the Reference Committee, the report of the Ad Hoc Committee to Study the Structure of the FMA was adopted as printed.

Ad Hoc Committee to Study The Structure of the FMA

ROBERT E. ZELLNER, *Chairman*

The chairman of this committee, at its inception, considered the charge to the committee and concluded that it had two duties: One, the specific consideration of Resolutions 70-1 and 70-19, and two, a general consideration of the organizational structure of the FMA. Accordingly, a letter was written to all members of the House of Delegates, FMA council chairmen, and presidents and secretaries of component medical societies, enclosing a copy of the current FMA constitution and by-laws, informing them of the composition of the committee and its purpose, and asking them for written and verbal suggestions. The committee held its first meeting on December 6, 1970. Following this meeting, a second letter was written to the presidents of all county medical societies informing them of a second meeting to be held in Orlando, January 31, 1971, following the presidents and secretaries meeting and inviting all interested FMA members to respond, either in person or in writing. The response to these two mailings was remarkably poor. All told, two county medical societies, two council chairmen, one specialty society and eight individuals responded. This would suggest either widespread satisfaction with our present system of government or appalling apathy on the part of the people who are most concerned with organized medicine in the state and with making it work.

In preparation for the committee's study, the constitutions and by-laws of eight other state medical associations somewhat comparable in size and problems to the FMA were analyzed and synopsized for the members of the committee. These were Massachusetts, Minnesota, Michigan, Ohio, Pennsylvania, Wisconsin, Illinois and Indiana. In addition, the chairman prepared a critique of the FMA constitution and by-laws for consideration by the committee members. The committee unanimously concluded that:

1. The constitution and by-laws under which the Florida Medical Association operates are basically excellent and meet the needs of the doctors of Florida better than any other that we studied.
2. There are certain areas in our constitution and by-laws which can be improved.
3. The information and recommendations which were received from the membership are so scanty that any recommendations which could be made by the committee would be little more than the opinions of the committee members.
4. A continuing study of the constitution and by-laws should be made and the way in which this committee might best serve its purpose would be to pose questions for further consideration by all concerned rather than to suggest answers. It was the opinion of the committee that any solutions which had not been thoroughly aired and thoroughly discussed in advance would satisfy very few people and have very small chance of being adopted.
5. Insofar as making specific recommendations is concerned, the committee will confine itself to the first part of the charge, i.e., Resolutions 70-1 and 70-19.

Resolution 70-1.—The committee considered each of the "Whereases" in the resolution, inasmuch as the resolution is based on the assumption of the validity of these paragraphs, and makes the following report:

(Whereas No. 1): "Whereas, The AMA at the very

time it is most needed to preserve our American way of medical practice which has resulted in our nation's becoming the medical leader of the world, is annually numbering a smaller percentage of American physicians among its members and,

(Whereas No. 2): "Whereas, If the present rate of this membership loss continues, by the end of the year 1970 the AMA will number less than fifty per cent (50%) of this nation's medical doctors as members, and"

AMA membership at that time was 219,500—over 91% of those eligible for membership, and an increase of 2,300 over the previous year—an all-time high and two-thirds of the estimated gross doctor population of 330,000.

(Whereas No. 3): "Whereas, This situation has resulted from, among other reasons, the need for more effective leadership by this body, and"

As indicated above, the "situation" does not exist. The committee agrees that more effective leadership is and always will be needed.

(Whereas No. 4): "Whereas, The present structure of organized medicine has been the fault for such lack of effectiveness, and has also resulted in organized medicine's failing to allow itself to take advantage of the vigor of its youthful component, and"

This "Whereas" presents a statement which at best is debatable and which at worst is nothing other than an opinion of the author of the resolution, with which opinion your committee does not agree. The committee agreed with the last two "Whereases" which indicate that the AMA is the sum total of its constituent medical societies and that improvement in those organizations would result in improvement of the Association.

With the single exception of the author of the Resolution, not a single voice was raised in support of Resolution 70-1. Two typical comments of members of the House of Delegates: First, from a thirty-three-year-old member—"What we need is greater cohesion, not division, of organized medicine." And from a forty-three-year-old member—"The FMA is an association of all the doctors in Florida, represented indiscriminately as to age, sex, color, type of practice, locale, and so forth, and as such ought to be kept as that type organization. To try to fractionate the FMA on any basis, clique, faction, and so forth, will probably destroy the effectiveness of the organization." With these sentiments the committee agrees. We believe that the rationale for dividing the House according to age is no stronger than that for dividing it according to sex, specialty, color, religion, or any other such qualification.

RECOMMENDATION

1. It is recommended that Resolution 70-1 be disapproved.

The second part of the committee's charge was to study the structure of the Florida Medical Association. Since Resolution 70-19 addresses itself to a change in the structure of the FMA, it was considered in this context and will be considered in this report in that order.

Most governments in this country, both in political and medical societies, consist of three branches: the executive, the legislative and the judicial. The committee considered the organizational structure of the FMA, of eight other state medical associations and of the AMA. As a result of this study, certain conclusions were reached and several questions were raised. The committee's ideas may best be presented in a lucid manner by presenting these in the three separate divisions.

The Executive Branch (Board of Governors).—Our Board of Governors has members which are elected and others which are appointed. In this respect we are unique when compared with the other eight associations. All the others provide for the election of their Boards of Governors in various ways—some by popular election in the districts entitled to representation, some by delegates from the represented district, some by the House of Delegates from nominees residing in the various districts. In our opinion, our system is the best of the lot. All but six members of our Board owe their membership to their having been elected to office by the House of Delegates. These are the president, vice president, president-elect, immediate past president, immediate past president once removed, secretary-treasurer, speaker of the House, and an AMA delegate representative. The appointed members are the members from the four medical districts and the at-large member, plus the representative from the State Board of Health. While it may be more democratic to elect all members of the Board, having some members appointed provides for greater flexibility and has other very distinct advantages. Elections are often decided by personal popularity, how well-known a person is, how long he has been active in the Association and how large and influential his medical society may be. Whenever members of the Board are elected, the large counties in the various districts tend to monopolize membership on the Board. Another advantage is that our system permits the President to bring to the Board younger men and men from smaller county medical societies who would be unlikely to be elected on their own. It is suggested that no change be made in this aspect of the selection of the members of our Board of Governors.

The Board of Governors is the executive body of the FMA and its responsibilities include not only carrying out the directives of the House of Delegates, but governing the FMA between sessions of the House, reporting its actions to the House and making recommendations on various matters. At the present time there is some overlapping of legislative and executive responsibilities which in our opinion is undesirable. Our by-laws provide that all members of the Board of Governors are members of the House of Delegates, as well as providing that the Speaker of the House is a voting member of the Board. We think this constitutes a conflict of interest, because the Board not only makes recommendations to the House but then in a closely contested matter being debated in the House it could conceivably not only act as advocate but could cast the deciding votes. By contrast, the AMA provides that whenever a member of the House is elected to the Board of Trustees he automatically surrenders his seat in the House. Members of the Board of Trustees have the privilege of the floor but they are unable to vote and thus cannot take active part in approving decisions which as the Board of Trustees they recommend. By the same token, the Speaker of the House of Delegates is an ex-officio member of the Board of Trustees, but he is not a voting member. Our Speaker of the House should be similarly privileged; that is, he should be an ex-officio member of the Board of Governors but he should not be a voting member.

As earlier indicated, the Board of Governors selects one member from the State Board of Health to serve on the Board. The two physicians on the State Board of Health are appointed by the Governor of Florida, sometimes without consultation with the FMA. We think it is objectionable that there are only two physicians from which the President may make a choice. Inasmuch as this member by virtue of long service on the State Board of Health may very well be the oldest member of the Board of Governors insofar as tenure of office is concerned, it is possible that he could very well become the dominant member of the Board. The late Dr. Herbert Bryans, for many years president of the State Board of Health, served on our Board of Governors as Board of Health representative for something like twenty years, which no other physician in Florida history has done. It is suggested that if it is desirable to have on the Board of Governors a member of the State Board of Health, he too be an ex-officio member without vote. Consideration should be given to having the president or some other member officially representing the Board of Directors of Blue Shield of Florida as an ex-officio member of the Board. In summary, it is suggested that the Board of Governors membership be constituted as it now is, with its members both elected and appointed as they now are, except that the Speaker of the House be an ex-officio member without vote, that the State Board of Health representative be ex-officio without vote, and that a member from the Board of Medical Examiners and a member from the

Board of Directors of Blue Shield be considered for ex-officio membership on the Board without vote. Another suggestion would be that no member of the Board of Governors serve as a member of the House of Delegates while serving on the Board.

House of Delegates.—Currently there are three classes of membership in the House of Delegates. First, there are those who are elected by county medical societies on a proportionate basis; second, there are the members of the Board of Governors, and third, there are the members of the Council on Specialty Medicine. The majority of state medical societies whose charters and by-laws were reviewed provide with few exceptions that the vote in the House is restricted to delegates elected by the constituent county medical societies. We extend the vote more generously than any other medical organization reviewed. Officers of the Association, members of the Board of Governors, AMA delegates, Past Presidents, may be given ex-officio membership in the House of Delegates, but it is our opinion that they should have no vote. The Speaker should have a vote only in the case of tie; otherwise, it destroys the purpose of having a tie-breaking vote. The Council on Specialty Medicine deserves more consideration, not only insofar as its membership in the House of Delegates is concerned, but in many of its other activities, and its consideration will be reserved until the whole council is discussed.

Judicial Council.—In none of the other charters and by-laws examined is the membership of the Judicial Council treated in such a casual manner as in ours. In most states, members of the Council are elected by the House of Delegates. Several states specify qualifications for membership on the Council: past president, past membership on the Board of Governors, membership in the House of Delegates for 10 years, past county medical society president, and so forth. Our system of government is constituted so that the Association is administered through the Board of Governors by the various committees and councils. All these councils are set up so that the chairmen of the various committees grouped under the respective councils are members of the council, and the individual councils have a chairman as a coordinator. All the councils are treated alike, with one exception: the Council on Specialty Medicine. If any council deserves special consideration, certainly it should be the Judicial Council, the duties of which may be extremely important to any and all members of the Association. In its composition it is treated in the same manner as all the other councils, with the exception of the Council on Specialty Medicine; that is, the chairmen of the various committees comprising the Judicial Council serve as the members of the Judicial Council. These are, respectively, the chairmen of the grievance committee, the committee on medical licensure, the committee on membership and discipline, and the committee on archives, plus one member elected by the Board of Past Presidents from its membership. As it now stands, it is conceivable that the president of the Association could, by appointing new chairmen of each of the committees comprising the Judicial Council, completely change the membership of the Judicial Council each year. It is suggested that our Judicial Council be constituted in a manner similar to that of the AMA, that the Council have five members, each member to be elected for a five year term by the House of Delegates, in such a way that one would be elected each year, with one representing each of the four medical districts and the fifth elected from the state at large. In the AMA, potential members of the Judicial Council are nominated by the Board of Trustees and elected by the House of Delegates. The House of Delegates may reject a nominee, but may not initiate the nomination. In other words, if the nominee is rejected, the Board of Trustees must make a second nomination. This procedure might be considered for adoption by the Florida Medical Association.

Council on Specialty Medicine.—It was agreed by all who testified, either in person or by letter, including the chairman of the Council, and it was agreed by the committee, that the Council on Specialty Medicine as now constituted is awkward and has outlived its usefulness. The opinions as to what should be done about it were as varied and as numerous as those who testified. For this reason, the committee has no recommendation on Resolution 70-19. Rather it feels that the questions which have been raised affect the basic structure of the FMA and should be thoroughly discussed and debated before any solution should be offered to the problem of the Council on Specialty Medicine. Before raising the questions, it might be helpful to consider the background against which these questions are raised.

Without exception, the various specialty societies feel that they should select their own representative on the Council. This seems reasonable enough for those specialties where there is a sharp distinction in practice, such as radiology or anesthesiology. The problem of duplicate representation arises, however, in surgery, where the Florida Association of General Surgeons, Florida Chapter of the American College of Surgeons, Florida Chapter of the International College of Surgeons, Florida Industrial Medical Association, all may have largely the same membership. A Council on Specialty Medicine representing all the specialty societies recognized by the Association with representatives selected by the societies might be the most logical solution to the problem, were it not for the desire of the specialty interests to own seats in the House of Delegates. This poses a problem which leads to further questions. First, should the House of Delegates which has set a limit of 250 members, permit an unlimited number of delegates from special interests, where the addition of each new special interest delegate would mean one less delegate from the county medical societies? The second question—should a delegate from a special interest with 500 members have the same vote as a member representing 30 members, when county medical society delegates are apportioned on a 1-to-40 basis? It is generally agreed that there will continue to be more fragmentation of medical practice and ever-increasing number of specialty societies, leading to an ever-increasing demand for more representation for specialty societies in the House of Delegates. With one exception, no other state medical association studied provided for membership in their House of Delegates by representatives of specialty interests. In that state, the chairman of the Council on Specialty Medicine sits in the House of Delegates as a representative of all specialty interests. The committee received from one county medical society a proposal that only delegates duly elected on a proportionate basis by a county medical society be seated in the House of Delegates. Another suggestion was that the Council on Specialty Medicine be limited to 10 seats in the House of Delegates, with those 10 delegates elected from and by the entire membership of the council, with each council member's vote weighted in proportion to the number of members he represented. This proposal presupposed that the various representatives would be selected by the specialty societies themselves.

Reference has been made to the method which the AMA recently adopted for handling its specialty sections as recommended in the Quinn Report. It should be pointed out that the FMA and AMA situations are not comparable in that the various specialty societies are subordinate units of the FMA and require approval by the FMA, in contrast to the independent national specialty organizations whose only AMA connection is through the specialty section. Since this new AMA system will be implemented for the first time in 1971, it remains to be seen if it will be an improvement over the old one.

Because of the complexity of the problem and because of the need for wide discussion and consideration before any proposal is brought to a vote, the committee offers no solution to this matter.

RECOMMENDATIONS

It is recommended that:

1. The study of the structure of the FMA be continued;
2. Publicity be given to the problems as suggested by the committee in the hope of increasing the intellectual input into the committee's deliberations; and

3. The problems posed by Resolution 70-19 continue to be studied in light of the questions raised in this report.

Florida Medical Foundation

Upon recommendation of the Reference Committee, the report of the Florida Medical Foundation was adopted as printed.

Florida Medical Foundation

EUGENE G. PEEK JR., *President*

The Florida Medical Foundation is observing its 15th anniversary this year.

Established by the House of Delegates of the Florida Medical Association in 1956, the Foundation's affairs are managed by a Board of Directors which is also the Board of Governors of the FMA.

Briefly, the non-profit Foundation's manifold mission is to improve the health and medical care of Floridians; to sponsor medical education programs; to provide loans for deserving Floridians who are pursuing a medical education; to assist deserving indigent or destitute physicians; and to promote and sponsor medical research for public benefit.

Some of the Foundation's principal activities during the past year included approval of additional research grant applications; continuation of the "Program Effectiveness System for Health Care" project; approval of a new contract with Blue Shield for peer review services; and the award of additional medical student loans.

The year also saw the Foundation's withdrawal as fiscal agent for the Florida Regional Medical Program, Inc. The termination was effective February 28, 1971.

New research grant requests approved by the Board are as follows:

"Problems in the Care of Patients with Antibody Deficiency States," Martin L. Schulkind, M.D., University of Florida, Department of Pediatrics, $6,520.

"Human Clinical Pathology Induced by Snake Envenomation," Carl E. Andrews, M.D., $11,550.

The Foundation decided to extend for another year, until November 7, 1971, its contract with the U.S. Department of Health, Education and Welfare for the "Program Effectiveness System for Health Care (PRES)." The Foundation was informed that with the one-year extension, practical application can be made of information compiled during the early stages of the project. This would include computerization of the business side of 100 physicians' offices.

At its meeting on January 17, 1971, the Foundation approved a new contract with Blue Shield for peer review of Blue Shield and Medicare claims. The contract lists the functions and responsibilities of Blue Shield, the Foundation, and local medical peer review committees in the performance of review services, and provides for the financial reimbursement for the provision of these services.

Along these same lines, the Directors also authorized the Foundation to participate in a contract to provide peer review for the Title XIX (Medicaid) program in Florida.

During the period from April 1, 1970 to February 28, 1971, 58 applications were received under the Foundation's Loan Guarantee Plan. Thirty-eight loans totaling $55,225 were approved. Three applications were withdrawn and 17 others were pending as this report was prepared. Total assets were $32,346.36. After deduction of the 10 per cent recourse funds ($5,522.50) the balances available for loans totals $26,823.86.

In two significant organizational matters, the Board approved a proposal that the Foundation be reorganized in such a way as to function as a Health Maintenance Organization or Professional Review Service Organization if feasible and if such legislation is enacted; and ordered that application be made for membership in the United Foundations for Medical Care.

Among other actions at its meetings during the past year, the Board:

—Renewed for 1971 the $1,000 scholarship for the senior division winner of the State Science Fair.

—Approved a joint mail appeal for contributions with the American Medical Association Education and Research Foundation.

—Directed that the Foundation apply to the Florida Public Service Commission and the Federal Communications Commission for a public service communications channel.

—Approved a survey of medical services in state institutions under a standing agreement with the Florida Division of Health.

President's Address

The Reference Committee acknowledged its assignment to consider the report of the President as presented in his address to the First House of Delegates on Wednesday, commended him for his stimulating humor and recommended adoption of his address as presented.

It was adopted. (The President's address begins on page 21.)

Remarks of the Speaker

The Reference Committee expressed its appreciation for the information and instructions contained in the Remarks of the Speaker as presented to the House at its first meeting.

The remarks of the Speaker were adopted as presented. (The Remarks of the Speaker appear on page 26.)

Judicial Council

The Reference Committee reported that it concurred in the Board of Governors' disapproval of the Judicial Council's recommendation for an amendment to the by-laws, as reported in the Council's report under the heading "Osteopathy," and recommended that the Board of Governors' recommendation for disapproval be adopted.

The Board of Governors' recommendation was adopted, thereby disapproving the Council's recommendation.

The Reference Committee recommended that additional thought be given by the appropriate committees to the establishment of a statewide committee for liaison with osteopathy.

The Reference Committee's recommendation was adopted.

Recommendation No. 1 of the Judicial Council was adopted.

Recommendation No. 2 of the Council, recommending acceptance of placement advertising in the *Journal* and by the FMA placement service from osteopaths, was not adopted.



Dr. Cook proudly introduces his son, Dr. James T. Cook III and his wife at the President's reception.



Dr. and Mrs. Cook welcome Dr. and Mrs. Luis M. Perez at the President's reception. Dr. Perez was recipient of the A. H. Robins Award.



Dr. and Mrs. James T. Cook, and Dr. and Mrs. Floyd K. Hurt, and Mrs. Bennie Spanjers, President of the Woman's Auxiliary to the FMA, at the President's reception.

Recommendation No. 3 of the Council was adopted.

Recommendation No. 4 of the Council was adopted.

Recommendation No. 5, concerning hospital staff privileges for osteopaths, was not adopted.

The report of the Judicial Council was then adopted as amended.

Judicial Council

JOHN J. CHELEDEN, *Chairman*

The Judicial Council held two sessions since we last reported—in Tampa on November 21-22, 1970, and in Jacksonville on March 7.

A number of matters involving professional ethics and discipline came before the Council for consideration, but its principal concerns included: 1) professional relationship between medical doctors and doctors of osteopathy, 2) turbulence within the medical communities in two cities in Florida, and 3) the role of Florida-licensed physicians in abortions performed in other jurisdictions.

Abortion: A controversial issue was brought before your Council by a Brevard County physician who proposed to charter a ship of foreign registry for the purpose of performing abortions on the high seas.

This proposal apparently would not be in violation of Florida law. Your Council held a long interview with the physician who proposed this venture.

In a motion unanimously adopted by the Council, participation by Florida physicians in abortions under such circumstances is deemed to be unethical for these major reasons:

1. The use of a referral service as a source of patients is in effect solicitation of patients.
2. A corporate medical practice would almost inevitably result from the nature of the financing of the ship.
3. The method by which patients would be referred, processed, examined and aborted would result in a third-party or subcontract type of medical care which is not in the best interest of the patient.
4. The project as proposed effectively takes the practice of medicine beyond the jurisdiction of any regulatory body including the Florida Medical Association and the Florida State Board of Medical Examiners.

Charlotte County-Medical Center Hospital: Your Council hopes that its efforts toward settlement of the protracted situation in Punta Gorda were successful. This unfortunate situation began many months ago with the dismissal of a member of the medical staff of the Medical Center Hospital. The protagonists basically have been the administration and medical staff of the hospital on one hand, and the Charlotte County Medical Society on the other.

Your Council heard representatives of both sides at a brief hearing in Tampa on November 22, after which it formulated the following opinion:

> "The Judicial Council is of the opinion that the manner in which former medical staff members of the Medical Center Hospital at Punta Gorda were dismissed in 1969 was unethical; however, this hospital is now under new management and has updated its medical staff bylaws, which appear to be proper. The Judicial Council is of the opinion that it is not unethical to practice medicine in this hospital as of this date (November 22, 1970)."

Since that date no additional agitation has come to the attention of this Council; therefore, it can be assumed that some measure of tranquility has been restored to the medical community in Punta Gorda.

Perry-Doctor's Memorial Hospital: The Judicial Council and its Committee on Membership and Discipline were called upon to mediate a dispute between one member of the medical staff of Doctors Memorial Hospital in Perry and the other medical staff members.

The turmoil eventually led to the dismissal of the one member from the medical staff. The District 2 Membership and Discipline Subcommittee conducted an inquiry at Perry (See report of Membership and Discipline Committee below) and recommended that the medical staff member be taken back on the staff and given the opportunity to resign. The hospital's governing board complied with this recommendation, which was upheld by the Judicial Council at its March 7, 1971, meeting after a thorough review of the situation.

Emergency Room Contracts: Your Council has continued to serve as a clearinghouse for contracts between hospitals and emergency room physicians or groups of physicians. Once the Council has approved a contract, Blue Shield of Florida is notified, and a provider number is issued.

A number of inquiries have been received from both hospitals and physicians, occasionally from lawyers, regarding what constitutes an ethical contract. Each inquiry is answered promptly.

Two documents have been developed to assist in the negotiation of these contracts. One is a checklist entitled "Criteria-Ethical Contracts Between Physicians and Hospitals" which is based on FMA policy as promulgated by the House of Delegates in recent years. The other aid is a "Model Agreement for Emergency-Medical Professional Service." It is not the intention of the Council that this model agreement be adopted exactly by each and every hospital and emergency room group; rather it is designed to serve as a foundation on which to build contracts fitting individual situations.

Osteopathy: Matters of relationships between doctors of medicine and doctors of osteopathy commanded a major portion of your Council's time during the past year. Virtually all aspects of this field have been explored in considerable detail, and your Council has a number of specific recommendations to make to the Board of Governors and to the House of Delegates. [The Council has recommended to the Board of Governors that the bylaws of the Florida Medical Association be amended in such a manner that doctors of osteopathy may be admitted to membership in the FMA and its component societies on the basis of their medical qualifications and without regard to their degree. Disapproved by House.]

Specific recommendations to the House of Delegates with regard to osteopathy may be found elsewhere in this report.

It has been suggested to the Council that an FMA Liaison Committee on Osteopathy be formed. However, after due consideration it was felt the intent of this recommendation could be met better if liaison committees were formed on the local level as needed. In the event these committees become so numerous as to be unworkable, establishment of a statewide committee might be reconsidered.

Resolution 70-4, adopted by the 1970 House of Delegates, authorized the component medical societies to determine their own ethics of relationship with osteopaths subject to review and approval by the Judicial Council. Subsequently, the following medical societies submitted policies on osteopathy, all of which were approved: Alachua County Medical Society, Dade County Medical Association, Duval County Medical Society, Highlands County Medical Society, Hillsborough County Medical Association, Broward County Medical Association, Marion County Medical Society, Clay County Medical Society.

A policy submitted by the Pinellas County Medical Society was returned for clarification.

The Council took note that two county medical societies complied with its directions to reprimand the members of the medical staff of one hospital in each area for causing an osteopath to be admitted to staff privileges in violation of FMA's policy in effect at the time of their action.

The Council also directed that similar action be taken against a third county medical society, but that case is pending at the time of this report.

Advertising by Clinical Laboratories: Various instances in which clinical laboratories circulated schedules of fees and services were referred to your Council. While it is indeed unethical for a doctor of medicine to "advertise" his fees and to solicit patients thereby, the FMA has no jurisdiction over such practice conducted by lay laboratories. Since this is a matter of some concern, your Council has recommended that the State Division of Health include pertinent regulations in the rules and regulations for licensure.

Advertising in Journal of FMA: The Council and its operatives have been cooperating with the Editor of the *Journal of the Florida Medical Association* in reviewing classified advertising that may possibly be in conflict with the policy of the FMA. The bulk of these ads is submitted by hospitals which are trying to attract physicians to their emergency rooms. A common offense of these ads is statement of a guaranteed salary for patient care. After Judicial Council review, offensive ads may be either rejected or accepted as amended or modified.

In a related matter, we recommend that for the time being, FMA's policy in regard to lay laboratory advertising in the *Journal* and exhibiting at the Annual Meeting remain as is, pending review by the Board of Governors. Generally, this existing policy has the effect of accepting advertising and exhibits from these laboratories which employ professional supervision of the testing and which do not interpret the results of the tests.

FMA-County Society Bylaws: The Council has recommended to the Board of Governors one change in the FMA Bylaws and approved revision in component society bylaws submitted by Orange County, Polk County and Franklin-Gulf County. The FMA Bylaws amendment as approved by the Board of Governors, would exempt from payment of dues physicians who leave their practices for six months or more to engage in missionary or other endeavors of goodwill. Columbia County, responding to appeals from this Council, amended its bylaws to provide associate membership for physicians practicing in Florida but unlicensed in this State.

Dissolution of Professional Associations: The Council was asked to render advice on the ethical aspects and principles involved when a professional service corporation is dissolved or when a physician leaves the corporation. The question arose from Hillsborough County where Dr. Ernest R. Bourkard, as chairman of the Hillsborough County Medical Association's Board of Censors, rendered a preliminary opinion. Your Council was highly impressed by Dr. Bourkard's advice and adopted it for guidance in answering future inquiries. Dr. Bourkard's opinion was published in the March issue of the *FMA Journal*.

Proposed Formation of a New Component Medical Society: The Judicial Council gave tentative approval to the petition of nine doctors for the formation of the Osceola County Medical Society. Final approval is contingent upon submission of an acceptable constitution and bylaws.

Miscellaneous: A number of miscellaneous matters arising from county medical societies and other sources was considered by the Council. These included complaints about specific physicians; information on the activities of various charlatans who may be engaged in the practice of medicine without a license; and matters pertaining to medical licensing, physician's assistants, etc. All were handled in what was believed to be the most expeditious and efficient manner in the framework of established FMA policy.

Specific Opinions of the Council: Your Council, after due deliberation, rendered several opinions in response to specific inquiries:

Opinion No. 70-1: It is ethical for a physician to own an interest in a lay laboratory, as long as there is no exploitation of patients and provided his name is not used in an unethical manner.

Opinion No. 70-2: It is not proper to have lay members serve on the board of directors of a professional service corporation rendering medical service.

Opinion No. 70-3: It is proper for a physician to list himself as a "P.A." (professional association) in the telephone directory, as long as he also identifies the healing art (i.e., doctor of medicine) which he practices.

Opinion No. 70-4: If an arrangement whereby a dermatologist and a podiatrist sharing the same office results in better professional care, or a service not otherwise available in the community, from a legal and ethical standpoint there is nothing wrong with the association; but it might possibly be in poor taste and below the dignity of the medical profession.

Opinion No. 70-5: It is ethical for a psychiatrist to distribute office opening announcements listing the name of an associated psychologist, provided that it is clearly implied that the psychologist is a subordinate and not involved in medical practice.

Opinion No. 70-6: The Judicial Council sees no objection to a fulltime public salaried physician using his employer's office facilities in a part-time private practice provided the employer is aware of and agrees to this arrangement.

Your Council makes the following recommendations to the House of Delegates:

RECOMMENDATIONS

1. That osteopaths be allowed to attend scientific sessions of the Florida Medical Association as guests of member M.D.'s, as well as other scientific programs in which doctors of medicine are participating.
2. [Not Adopted]
3. That the medical schools of Florida be allowed to accept osteopathic physicians for participation in postgraduate courses and for referral of patients.
4. That a document prepared by the Judicial Council be used as a guideline for those component medical societies wishing to revise their present policy on osteopathy under the provisions of Resolution 70-4.
5. [Not Adopted]

Committee on Archives.—The Archives Committee of the Florida Medical Association transacted its business in one telephone conference on February 20, 1971, at which time it reviewed the year's work and laid plans for the future.

Our activities began with the first meeting of the House of Delegates, May, 1970, at which time this committee conducted a brief Memorial Service in honor of our departed members. We also recognized those members who joined the FMA in the years of 1940 and 1941. Streamers were attached to their badges indicating the year they joined the organization.

The Committee's ongoing project to accumulate biographical data on the members of the FMA continues to do quite well as related to new members. However, the cooperation of the older members who have not already sent in their forms has been nil this past year.

We are in the process of revising the archives data form to make it more applicable to new members.

Our Subcommittee on the History of Medicine Museum in St. Augustine continues to function under the able

chairmanship of Dr. James J. DeVito, but activity this year has been somewhat limited. Attempts to raise money for the execution of murals and dioramas which are to depict the development of medicine in Florida, have not been successful. Mr. W. Harold Parham, Executive Vice President of FMA, has attempted to obtain funds from pharmaceutical firms over the past two years without success.

We are somewhat heartened to learn that the Woman's Auxiliary to the FMA has agreed to contribute all proceeds of the annual art show at the FMA meeting to this project. We hope the Auxiliary will continue to assist in raising money for this endeavor. Members of FMA are encouraged to visit the Spanish military hospital and museum whenever they are in St. Augustine; we feel you will be proud of the part which FMA has played in this project.

In August, 1970, this committee sponsored a historical issue of the *Journal of the Florida Medical Association* on Seminole Indian medicine. This issue was well received judging from a large number of letters to the Editor of *The Journal,* many of which requested extra copies. A similar issue devoted to yellow fever in Florida is planned for August, 1971.

The ongoing project to write a history of medicine in Florida proceeds slowly. We would encourage any member of the Association who has information and inclination to contribute historical data to contact the chairman of this committee.

Negotiations are currently underway to install a marker at the northeast corner of Laura and Adams streets in Jacksonville commemorating the formation of the Florida Medical Association there in the office of Dr. Abel S. Baldwin on January 14, 1874. It is hoped that before the end of this year this can be accomplished.

This committee will conduct a Memorial Service on Wednesday, May 5, 1971, at the first meeting of the House of Delegates at the Americana Hotel in commemoration of those members who left our ranks during the past year. We will also honor those members who joined the Association in 1942 and 1943 at a reception on Thursday, May 6, 1971, at noon and at that time attach to their badges a ribbon indicating that they joined the Association in these years.

During the past year, the Association has lost a number of its valued members whose names are included in the Delegates' packet and in whose honor the Memorial Service will be held.

Grievance Committee.—The Grievance Committee continued to provide the machinery for processing various types of complaints by patients against individual physicians. Approximately 30 such complaints have been handled in the past year.

It might be well to outline the procedure employed by your committee in processing these grievances.

When a complaint is received by the FMA headquarters, it is sent to the chairman of the Grievance Committee of the appropriate component society. He is asked to investigate, conduct a hearing if necessary and advise both the complainant and the Association of his findings.

If a component society does not act within 180 days, the chairman of the state committee follows up with another letter inquiring of the status of the case. If the county society fails to investigate, the state Grievance Committee may assume original jurisdiction and hear the case itself, although this was not necessary during the past year.

The state committee also serves an appellate function for either the physician or the complainant if either party is not satisfied with the decision reached at the local level. Two cases were reviewed by the state committee and in both instances the opinion of the local society was upheld.

Committee on Membership and Discipline.—Your Committee on Membership and Discipline is one of the largest committees of the FMA. The Bylaws provide that it shall consist of four members from each of the state's congressional districts.

Florida currently has 12 congressional districts, placing the Membership and Discipline Committee membership at 48. As a result of the 1970 census, Florida will gain three congressional seats, increasing committee membership to 60.

Twenty-eight of the 48 incumbent members attended an orientation session with the Judicial Council in Tampa in November. At that time, it participated in a hearing concerning the conflict between the Charlotte County Medical Society and the Medical Center Hospital in Punta Gorda. The committee rendered advice to the Judicial Council, which issued an opinion based on the latest developments in the prolonged controversy (see Judicial Council report above).

Your committee's District 2 Subcommittee met at Perry, Florida, in December in an effort to mediate a dispute between one of the doctors in the community and the remainder of the medical staff at Doctors Memorial Hospital. The subcommittee's report and recommendation served as a basis for review by the Council at its March 1971 meeting.

Another function of the committee is that it provide the mechanism for reviewing proposed contracts between hospitals and hospital-based physicians. When a contract is submitted to the FMA, the document is forwarded to members of the appropriate Membership and Discipline subcommittee. The subcommittee measures the contract against ethical criteria and reports its findings and recommendations for approval or disapproval to the chairman of the Judicial Council.

Committee Recommendation:

1. **Your Committee on Membership and Discipline recommends that all functions and problems delegated to it in the By-Laws of the Florida Medical Association be referred to this committee when these matters are not settled properly at the county society level. Subcommittees will be designated to meet with interested parties and conduct the necessary inquiry.**

Committee on Medical Licensure.—The number of physicians taking the examination of the Florida Board of Medical Examiners, and subsequently, the number licensed, continues to increase. During 1970, the Board examined 2,349 physicians, licensing 1,761 of them.

In the past, the Board has met twice yearly; however, the increased workload has made meetings six to eight times a year necessary. Examinations are still given on a twice-a-year basis, in January and July.

Individual hearing officers may now conduct hearings involving physicians, with opinions resulting therefrom subject to review by the entire Board at the next meeting. In 1970, the Board conducted 29 hearings. As a result of these investigations, one license was revoked, three were suspended, and six physicians were directed to surrender their narcotic stamps. Enforcement of the license suspensions was suspended and the doctors involved were placed on probation, subject to periodic interview by the Board. Two probationary suspensions were terminated, and one practice was restricted.

Members of the FMA Committee on Membership and Discipline, as official deputies of the Board, have assisted in the work of the Board in various parts of Florida.

The "Sick Doctor Amendment" to the Medical Practice Act enables the Board to require a physician to be examined by any physician of the Board's choosing. The Board may restrict the practice of a physician who comes under scrutiny within the framework of this law, in any manner it deems advisable.

Supplemental Report
Committee on Archives

The Supplemental Report of the Committee on Archives was adopted as presented.

Supplemental Report of Committee on Archives

WILLIAM M. STRAIGHT, *Chairman*

The Association has lost a number of its fine members during the past year and a list of these names is given below.

October 1969
Miller, Robert L.—Volusia
March 1970
Batell, Leo—Hillsborough
April 1970
Chunn, C. Frank—Hillsborough
Fernandez, Celestino G.—Hillsborough
Gable, Linwood M.—Pinellas
Lapinsohn, Leonard I.—Dade
Packer, Marvin S.—Dade
Woodhouse, George A.—Dade
May 1970
Creekmore, George R.—Pasco-Hernando-Citrus
Schaeffer, Oden A.—Dade
Smith, Patrick H.—Leon-Wakulla-Jefferson
June 1970
Bell, Alan E.—Escambia
Lithgow, William D.—Dade
Nichol, E. Sterling—Dade
Proctor, Harper L.—Duval
Robinson, James E. Jr.—Palm Beach
July 1970
Brunner, Earlsworth C.—Dade
Caldwell, Frederic E.—Okaloosa
Hopkins, Clack D.—Hillsborough
Parsons, Hugh E. —Hillsborough
Peek, Eugene G. Sr.—Marion
Skaggs, Thomas W.—Dade
Stebbins, Alvin L.—Escambia
Turner, John B.—Santa Rosa
August 1970
Flipse, Thomas E.—Dade
Giles, Robert E.—Duval
Kirkpatrick, Charles H.—DeSoto-Hardee-Glades
Mayer, Francis R.—Duval
Shedden, William M.—Volusia
Weekley, Augustine S. Sr.—Hillsborough
White, Bradford C.—Nassau
Williams, R. Reche Jr.—Hillsborough
September 1970
Ammons, Charlie A.—Duval
Baker, Archie J.—Duval
Blake, Lowrie W.—Manatee
Whitaker, Harper E.—Hillsborough
October 1970
Abel, Bernard—Dade
Cravey, George M.—Duval
Daurelle, George P.—Orange
Delgado, Robert E.—Orange
Denman, Francis E.—Dade
Jones, Nathaniel H.—Marion
Kneedler, Milo W.—Lake
Strasser, Hans A.—Orange
November 1970
Chambers, Silas E.—Dade
Creel, William J.—Brevard
Gould, Sylvester E.—Dade
Smith, Sidney—Manatee
Thomas, David J. Jr.—Palm Beach
December 1970
Canning, Harold B.—Franklin-Gulf
Christie, Gerard E.—Brevard
Ingram, William Jr.—Duval
Kobley, Donald E.—Dade
Nelson, Orville N.—Pinellas
Oliphant, Jones B.—Pasco-Hernando-Citrus
Putnam, George H.—Polk
Stahl, Pincus A.—Dade
January 1971
Bailey, Jesse K.—Dade
Feigenbaum, David—Dade
Mitchell, William S.—Orange
February 1971
Resnicoff, Max—Dade
Schumacher, Henry C.—Alachua
March 1971
Lefholz, Rothwell—Dade
Pilcher, John J. Jr.—Palm Beach
Schnauss, Fauntleroy H.—Duval
Wood, Edward W.—Palm Beach

Council on Special Activities

The Reference Committee recommended that the Council's Recommendation No. 4 be deleted, as the committee referred to in the recommendation had been abolished.

The Reference Committee's recommendation was adopted, and Council Recommendation No. 4 was deleted.

The remaining recommendations of the Council, No. 1, No. 2, No. 3 and No. 5 (to become No. 4), were adopted.

The Reference Committee concurred in the recommendation of the Board of Governors that Florida's AMA Delegation be commended for its efforts and accomplishments.

The Report of the Council on Special Activities was adopted as amended.

Council on Special Activities

W. DEAN STEWARD, *Chairman*

There have been no special problems referred to the Council on Special Activities this year, and the Council has not had a meeting. The Board of Past Presidents held their annual meeting at the 1970 FMA annual meeting, and will meet again in 1971. A representative was appointed to serve on the Judicial Council, a secretary was elected, and individual past presidents of the Association have served as called upon.

The AMA Delegates have attended all meetings of the American Medical Association and have carried out their assigned duties with customary dispatch and efficiency. A report of their activities has appeared in the Journal of the Florida Medical Association.

Committee on Advisory to Woman's Auxiliary.—The Drug Abuse Program has been the prime objective of the Woman's Auxiliary for this year. They have done an excellent job in the schools at the county level, as well as in teacher education. Over one thousand dollars was raised at the International Health Activities Bazaar, which was donated to CARE-Medico.

The Auxiliary will again sponsor the Annual Art Show at the FMA annual meeting, with the proceeds going toward support of the St. Augustine History of Medicine Museum. Progress is continuing in the plans for a trip abroad, planned for August 1971, the proceeds from which will go to the Florida Medical Foundation.

Two new Auxiliary chapters were formed, one in Charlotte County and the other in Collier County, and a Woman's Auxiliary to the Student AMA was initiated in Orlando.

The women have continued their interest and work in the state legislative programs.

RECOMMENDATIONS

1. That the Past Presidents be urged to take an interest in the affairs of the Association, both during the year and at the annual meeting, even though the privilege of the vote has been removed. Their voice and advice can still reach the House.
2. That the AMA Delegates be commended for their continuing fine job as the representatives of the Florida Medical Association.
3. That the chairman of the Committee on Advisory to the Woman's Auxiliary be commended for an excellent job during the past year.
4. That component medical societies urge members' wives to join the Woman's Auxiliary, and that the presidents of the societies exhibit interest and concern for the Auxiliary, improve lines of communication, and show appreciation for the work done by these ladies.

Committee on AMA House of Delegates.—Since its last report to the House of Delegates, your AMA delegation from Florida has attended two meetings of the AMA House of Delegates, in June and in December 1970. Although we were saddened hy not achieving our goal of electing Dr. Jere Annis president-elect of the AMA, his entry into the campaign did a great deal of good for Florida and for the AMA.

The 20 recommendations from the Committee on Planning and Development were referred to a multitude of committees, and memhers of the Florida Delegation were ahle to get around to all of them and he heard. The final recommendations which came out were acceptahle to all of us.

Five resolutions adopted at the 1970 FMA House of Delegates were introduced by the delegation to the AMA House of Delegates. Resolution 70-27 concerning Family Practice (AMA Resolution 46) was adopted as presented.

Resolution 70-32, "Prisoners of War of North Viet Nam" (AMA Resolution 47); Resolution 70-34, "Separate Compartment for Smokers on Puhlic Transportation" (AMA Resolution 49), and Resolution 70-24, "Drug Control Legislation" (AMA Resolution 50) were adopted in an amended form which retained FMA intent.

Resolution 70-26, concerning production of television programs, (AMA Resolution 48) was referred to the Board of Trustees for study and action as indicated.

Upon direction of the Board of Governors, two resolutions were presented hy the Florida delegation at the AMA Clinical Meeting in Decemher. The first, AMA Resolution 7, dealt with drug advertising in puhlic news media and the second, AMA Resolution 8, concerned protection against liahility for peer utilization review activities. Both resolutions were adopted in an amended form which retained FMA intent.

Council on Medical Services

Recommendations No. 7 and No. 8

The Reference Committee pointed out that By-Laws amendments have been adopted which would accomplish the intent of Recommendation No. 7 and Recommendation No. 8 of the Council on Medical Services, and recommended that these two recommendations be deleted from the Council's report.

The Reference Committee's recommendation was adopted; the Council's Recommendations No. 7 and 8 were deleted.

(See Report of the Council on Medical Services, page 40.)

Resolution 71-2
Specialty Medicine Representation
J. Gerard Converse, *Delegate*

The Reference Committee pointed out that in consideration of Resolution No. 71-2, Specialty Medicine Representation (in the House of Delegates), it was noted that specialists are widely represented in the House of Delegates, and that the President of the Association would endeavor to appoint interested, dignified members to the Council on Specialty Medicine, with the best interest of the Association in mind and in consultation with the Presidents of the specialty societies. The ratio of members-to-delegate representation in specialty societies would be vastly complicated to compute. The Reference Committee also pointed out that implementation of this resolution would require a by-laws amendment, which has not been recommended to this House by the Board of Governors and which is the required method for amending the by-laws. Therefore, the Reference Committee recommended that Resolution 71-2 be referred to the Board of Governors for further indepth study by the body which is appointed to conduct the continuing study of Resolution 70-19.

There was discussion; the recommendation of the Reference Committee was adopted, and Resolution 71-2 was referred to the Board of Governors.

A motion to reconsider Resolution 71-2 was defeated.

Resolution 71-2

[Not adopted—Referred to Board of Governors]

Specialty Medicine Representation

RESOLVED, That, in order to ohtain more democratic representation of specialty societies in the Florida Medical Association House of Delegates, those specialty groups comprising the Council on Specialty Medicine, he allowed to elect their individual representatives to the Council, rather than have the Council on Specialty Medicine continue as an appointed hody, and

RESOLVED, That such elected memhers of the Council on Specialty Medicine shall have all the rights and privileges of other duly elected Delegates to the FMA House of Delegates.

Resolution 71-4
Corporation for Physicians' Negotiations
Escambia County Medical Society

The Reference Committee proposed an amendment to Resolution 71-4, the deletion of the second "Resolved," concerning the employment of a public spokesman, and the addition of another "Resolved," to read:

> "RESOLVED, that the Board of Governors of the Florida Medical Association be directed to implement, if feasible, this resolution in the most expeditious manner and at the appropriate time."

A substitute motion to refer Resolution 71-4 to the Board of Governors for further study was made from the floor.

The substitute motion carried, and Resolution 71-4 was referred to the Board of Governors.

Resolution 71-4

[Not adopted—Referred to Board of Governors]

Corporation for Physicians' Negotiations

Whereas, Physicians are interested in providing the best of medical care at as reasonable cost as possible, and

Whereas, Physicians are interested in preserving the professional integrity of the ethical practicing physician, and

Whereas, Physicians recognize the trend toward unilateral control of the delivery of health ca e, and

Whereas, Physicians recognize that third party devices tend to direct the management of patients thereby usurping the physicians' direction of patient care. Therefore be it

RESOLVED, That the Florida Medical Association incorporate a separate organization (unless the existing Florida Medical Foundation would suffice) related to, and under the auspices of the Florida Medical Association and its component societies, independently funded, and with power to negotiate for and in the interest of Florida physicians individually and collectively—including third party contracts relating to physicians' services—granting authority to assure the physician of adequate compensation while at the same time protecting the public from excessive physician's charges, and safeguarding patient management by physicians rather than by third party devices, and further be it

RESOLVED, By the Florida Medical Association that such corporate body employ a non-physician as its public spokesman, and further be it

RESOLVED, By the Florida Medical Association that such corporate body or its Board of Directors have the authority to enforce the adherence to such negotiations within the present legal structure of the Florida Medical Association; however, with such final authority resting in the House of Delegates of the Florida Medical Association, and be it further

RESOLVED, That membership in this organization be limited to members of the Florida Medical Association and be on a voluntary basis.

Resolution 71-7
Restructuring of the FMA
Alachua County Medical Society

The Reference Committee reported that the sponsors of Resolution 71-7 had indicated their desire to withdraw the resolution from consideration by the House. It was further reported that the Reference Committee had heard no objection to the withdrawal of this resolution and recommended that Resolution 71-7 therefore not be adopted.

Resolution 71-7 was not adopted.

The Report of Reference Committee No. III was adopted as a whole as amended.

Dr. Broadaway: "I wish to thank the members who came to speak before Reference Committee No. III and the members of the committee who worked so diligently.

"Mr. Speaker, this concludes the report of Reference Committee No. III."

The Speaker announced the presentation of the 1971 Certificate of Appreciation to Dr. Russell B. Carson. Dr. William C. Roberts and Dr. W. Dean Steward were asked to escort Dr. Carson to the podium, where the presentation was made.

Dr. Carson acknowledged the Certificate and expressed his appreciation for the privilege of being a part of the Association. "I hope I may continue to enjoy this same privilege along with you, and for myself and Eleanor, I sincerely appreciate this award you have given to both of us today."



Dr. Charles K. Donegan, Speaker of the House, presents the Certificate of Appreciation to Dr. Russell B. Carson.

Certificate of Appreciation

WHEREAS, Russell B. Carson, M.D., of Ft. Lauderdale, has dedicated his life serving humanity through medicine for more than three decades, and

WHEREAS, This respected member of the profession was born at Frostproof, Florida, on December 7, 1907, attended the University of Florida, and received his Doctor of Medicine degree from Tulane University in 1935, and

WHEREAS, Dr. Carson served his country as a medical officer in the United States Army, September 1942 to April 1946, and achieved the rank of Major, and

WHEREAS, This compassionate physician has demonstrated his expertise in his chosen field by earning a diploma from the American Board of Urology and attaining fellowship in the American College of Surgeons, and

WHEREAS, Dr. Carson has served the Broward County Medical Association unstintingly as Vice President, member of the Board of Governors, Chairman of the Legislative Committee, member of various committees and as a Delegate to the Florida Medical Association, and

WHEREAS, He has served the Florida Medical Association as a member of the Board of Governors, member of the Membership and Discipline Committee, Vice President, and in various other capacities, and

WHEREAS, Dr. Carson has further served the profession as a member of the American Medical Association, Southern Medical Association, Southeastern Surgical Congress, Pan American Medical Association, and the American Urological Association, and

WHEREAS, Dr. Carson's dedication to serve as President and Chairman of the Board of Directors of Blue Shield of Florida, for many years, as well as serving as a national Board member, Secretary, and finally, Chairman of the Board of the National Association of Blue Shield Plans, deserves our highest praise,

NOW THEREFORE BE IT RESOLVED, That this Certificate of Appreciation be presented to this eminent gentleman whose service as a teacher, scholar, and civic leader we admire and whose selfless dedication to the medical profession and to the public deserves our special recognition.



Dr. Joseph C. Von Thron welcomes Senator Goldwater to the meeting.

Report of Reference Committee No. IV
Legislation and Miscellaneous

Dr. William H. Harrison Jr., Chairman, presented the report of Reference Committee No. IV, Legislation and Miscellaneous.

Council on Legislation and Public Agencies

The Reference Committee heartily endorsed the efforts put forth by the Committee on National Legislation in regard to the programs as outlined in its report, and recognized and expressed appreciation for the efforts of Dr. Joseph C. Von Thron and the committee.

The subject of Medicredit was contained in the Committee on National Legislation's report; the Reference Committee recommended that the FMA endorse the Medicredit concept, request the AMA to exert every effort to have it enacted, and encourage local physicians to contact their key contact physicians requesting their support of Medicredit.

The Reference Committee's recommendation was adopted.

The Reference Committee took note that the Committee on Government Programs has been active and to some degree effective in establishing lines for developing liaison between the Governor's office and the Florida Medical Association, urged that continued support be given this committee in the future, and requested the Board of Governors to encourage the Governor to appoint his Steering Committee on Health as soon as possible.

The Reference Committee's recommendation was adopted.

The Reference Committee noted the activity of the Committee on State Legislation under the chairmanship of Dr. Sanford Mullen and the continued growth in value of the FMA's staff office in Tallahassee, under the zeal of Mr. Donald S. Fraser, which has become an indispensable arm for our legislative committee. Commendation was extended to the Capitol Dispensary, the many doctors who have served as "Doctor of the Day" in Tallahassee, the program and accomplishments of the key contact physicians, the development of a "Legislative Bulletin" for members of the FMA and the new pamphlet distributed to members of the Florida Legislature entitled "FMA Legislative Objectives—1971."

The Reference Committee believed the efforts of the Committee in regard to legislation referred to in its report have been quite fruitful. Of the two bills designed to lessen professional liability and malpractice insurance (the reduction in the Florida Statute of Limitations from 4 to 2 years, and advance payments by insurance companies or individual physicians to the plaintiff without admission of liability), bills are still under consideration and have a fair chance of becoming law.

Upon the recommendation of the Reference Committee, the report of the Council on Legislation and Public Agencies was adopted as printed.

Council on Legislation and Public Agencies

JOSEPH C. VON THRON, *Chairman*

This is a year of crisis for the private practitioner of medicine. Each Florida physician is urged to follow all



Reference Committee IV personnel were Drs. William H. Harrison Jr. (Chairman), Allyn B. Giffin, Karl B. Hanson, Robert L. Andreae and Walter C. Jones III. (Standing) Dr. Sanford A. Mullen. Louria Neel was recording secretary.

bills relating to National Health Insurance more carefully than ever before.

President Nixon and Senator Kennedy have set the stage for a major partisan political battle. When the smoke has cleared, physicians could well be the major sources of casualty. Take an almost incomprehensible chapter from the recent history of Quebec: Last October, 6,000 doctors found themselves, in a space of two days, conscripted to practice cut-rate medicine in the province's new health plan.

The Council commends both our president, Jim Cook, for his most active interest, and Sanford Mullen, chairman of the Committee on State Legislation, for outstanding service to the many legislative programs.

Committee on National Legislation.—The national legislative committee unanimously endorsed the AMA Medicredit plan. As this report goes to press, seven congressmen and one senator from Florida have co-introduced this bill.

There are two major differences between the 1971 Medicredit legislation and the bill introduced last year: Catastrophic coverage has been added because Congress is expected to approve such a program before considering National Health Insurance. The peer review provision has been deleted.

Medicredit would:

(1) Pay the full cost of health insurance for those too poor to buy their own.

(2) Help those who can afford to pay a part of their health insurance premium. The less they can afford to pay, the more the government would help out.

(3) See to it that no American would have to bankrupt himself because of a long-lasting catastrophic illness.

Other legislation favorably supported by the committee includes:

(1) Medical Education. Capitation funding for medical schools will create incentives for expansion and curriculum shortening.

(2) Malpractice. Ten thousand claims filed in 1970; premiums sky-rocketed; and doctors practiced "defensively." These are some of the complications.

The annual entourage to Washington by the Committee on National Legislation was held in conjunction with the AMA-AMPAC Conference. Florida led all states in attendance, and placed second to Ohio in acquiring support by our congressional delegates of the Medicredit plan. A significant part of our success can be attributed to FLAMPAC. The work of this organization, and its president, Tom Edwards, resulted in our committee's rapidly developing a good rapport with the Florida delegation.

Committee on Government Programs.—With the structure of state government being reorganized and all the health functions being consolidated into one department of Health and Rehabilitative Services, it has been necessary to also reorganize the Committee on Government Programs.

As of this date, conferences have been held with officers of the FMA, and guidelines for the operation of the committee have been established. Each member of the committee has been contacted relative to his particular area, and it is now planned that in the very near future, the committee will hold an organizational meeting, at which time it is hoped that a representative from the AMA Washington office can be present to go over items of mutual national and state interest.

The committee is also moving ahead with plans to set up formal liaison with the Department of Health and Rehabilitative Services. Progress has been made with the Vocational Rehabilitation program relative to increase of fees for medical reports, and it is the committee's hope that a statewide fee for service, based on conversion factors used in that area, might be available for all state agencies instead of the wide variation that is now experienced.

On February 18, a meeting was held with Governor Askew to discuss problems that the Association feels the state of Florida is facing with regard to providing quality medical care. We were received most cordially and assured during the meeting of an excellent relationship with the Governor's office during the next four years. We were particularly pleased that the Governor pledged to form a Governor's Advisory Committee on Health, which will serve as a formal liaison with the Office of the Governor to work jointly on the many problems that will be coming up during his administration.

Committee on State Legislation.—The Committee has had an active year with responsibilities for coordinating all state legislation for the Florida Medical Association and recognized medical specialty groups. Five formal meetings of the committee have been held along with many informal conferences among committee members as items of an urgency nature arose. The committee is particularly pleased with attendance and participation at the Legislative Seminar, which was held in connection with the annual Conference of Presidents and Secretaries of County Medical Societies in Orlando, January 31, 1971.

Consistent with the policies developed by the FMA House of Delegates, the committee worked very closely with the Board of Governors in developing a legislative program for the 1971 session of the Florida Legislature.

The following items summarize the phases of the committee's activities:

1. Capital Office—The Capital Office has continued to function under the direct supervision of Donald S. Fraser Jr., Director of the Department of Public Affairs of FMA. This office has not only served as a focal point for legislative activities during the past year, but has been a valuable resource for the Association in coordinating activities with various state agencies and in providing information on state government to physicians and county medical societies throughout the state. Part-time assistance was used during the time the Legislature was in session, not only to assist in the operation of the Capital Office, but to provide close liaison with the physician serving as "Doctor of the Day." It is anticipated that during the coming year, increased emphasis will be placed on using the resources of this office to provide better service and coordination for the various medical specialty groups.

Of particular assistance to the Capital Office and the Committee on State Legislation has been the creation of a subcommittee composed of four physicians in practice in Leon County. This has provided the Capital Office with an immediate liaison with a committee for reaction to questions posed by various legislative committees and to provide testimony and other assistance when physicians from other parts of the state have had to cancel out at the last minute.

2. The Capitol Dispensary—The committee has continued to place major emphasis on working with the Capitol Dispensary, which has proven to be most important in meeting the medical needs of legislators and their staffs. The committee is particularly pleased that the physical plant has been improved, due to the remodeling under the supervision of Mrs. Delma Hart, R.N. A great many supplies and books needed at the Dispensary have been made available.

3. Key Contact Physicians—Primary emphasis has been placed on the development of the key contact program throughout the state. The committee is particularly pleased that, for the first time, we now have an ongoing key contact program in each county medical society. The committee feels that this program is extremely beneficial to both the legislator and the Florida Medical Association, as it makes available to each individual legislator a physician in whom he has confidence, to work with on matters of medical interest.

4. Publications—A legislative bulletin was published every week during the legislative session and periodically between sessions. The bulletin is designed to give up-to-date information to members of the FMA who are involved in the legislative activities. A new pamphlet, designed by the committee during the past year, primarily for distribution to members of the Florida Legislature, is entitled "FMA Legislative Objectives—1971."

5. 1970 Legislative Accomplishments—During the 1970 legislative session, there were 78 legislative proposals that required the action of the legislative committee or the Capital Office staff, in order to secure passage of good

legislation or prevent passage of those proposals which were definitely detrimental to good health care in Florida. Matters of major interest to the Florida Medical Association were:

—Defeat of the chiropractic mandatory insurance coverage bill;

—Prevention of inclusion of chiropractors in Title XIX;

—Sustaining the Governor's veto of the osteopathic hospital privileges bill;

—Passage of a community mental health act;

—Passage of legislation setting up a statewide post-mortem medical examiners system.

6. Specific Legislative Activities—The principal legislative objectives set for the 1971 session of the Florida Legislature are:

—Passage of legislation that will relieve the problems being faced in the area of professional liability and malpractice insurance. Proposals that have been drafted by FMA legal counsel for presentation to the legislature include:

a) Reduction in the statute of limitations for professional liability action from four to two years.

b) A provision that would allow for advance payments by insurance companies or individual physicians to the plaintiff without admission of liability.

While other bills in this area are being kept under consideration by the committee, the feeling is that none should be introduced during the current session of the legislature.

—Actions relative to chiropractic:

a) Prevent passage of the Mandatory Chiropractic Insurance Coverage Bill and prevent the inclusion of chiropractors in Title XIX.

b) Develop positive proposals to limit the scope of chiropractic practice and to educate the legislators to the potential dangers of chiropractic.

—Support legislation reforming Florida's present abortion law.

Supplemental Report
Committee on State Legislation

The Committee on State Legislation had obtained the unanimous consent of the House of Delegates to present a supplemental report to the Reference Committee to obtain the direction of the House for the committee's guidance in its legislative activities.

Healing Arts Accreditation Bill
(SB 675; HB number unassigned)

The healing arts accreditation bill (SB 675; HB number unassigned) concerns mandatory accreditation for educational institutions for all practitioners of the healing arts.

The Reference Committee recommended that the Association endorse the concept of mandatory graduation from a school fully accredited by an agency recognized by the National Commission on Accrediting and the U.S. Office of Education. The Chairman moved that the recommendation of the Reference Committee be adopted.

The recommendation was adopted.

Physician's Assistants
(CS for HB 377 and SB 280)

Amendments which have been added to HB 377 and SB 280 (Physician's Assistants) make this legislation severely restrictive and the legislation may not be desirable in the amended form.

The Reference Committee recommended that legislation be supported by the Association which would give the Florida State Board of Medical Examiners complete control over the regulation of physician's assistants; *(amendment added); that such legislation should contain nothing which would prevent the efforts of medical schools in the state to develop pilot programs for determining the need and usefulness of physician's assistants as this has not yet been determined; and that the term "physician's assistant" should be retained in preference to the term "physician's associate."

*There was discussion of the recommendation, and an amendment was moved from the floor to include in the series of recommendations of the Reference Committee "That such legislation would not discriminate against any licensed doctor of medicine."

The amendment was adopted, and the recommendation of the Reference Committee was adopted as amended.

Drug Legislation
Needle and Syringe Bills

The Reference Committee reported that in its opinion the proposed legislation regulating the hypodermic needle and syringe is unenforceable, that it would not accomplish the purpose for which it is intended, and that it would hamper the legitimately ill patient who requires the use of syringes. The Reference Committee believed that this legislation should be opposed, yet recognized the possibility that new developments may occur in the near future.

It was, therefore, the recommendation that the position with regard to needle and syringe legislation should be referred to the Board of Governors for consideration, study and determination.

The motion to adopt the recommendation of the Reference Committee carried.

Legislation Concerning Osteopathy
HB 1254

The Reference Committee recommended that the Association not oppose HB 1254 (providing for appointment of osteopathic physicians to the Advisory Council of the Division of Health), so long as it does not provide for decreasing the number of doctors of medicine to allow for osteopathic appointments.

The motion to adopt the recommendation of the Reference Committee carried.

HB 1184

The Reference Committee recommended that the concept of HB 1184 (which provides for the words "osteopathic physicians" to be placed alongside the words "medical doctors" at any place it is mentioned in the statutes or in any rules or regulations) be opposed; however, if such amendments would bring the osteopathic physician under the regulation of the Medical Practice Act it would not be opposed.

The motion to adopt the recommendation of the Reference Committee carried.

HB 1377

The Reference Committee recommended that HB 1377 (providing that county health officers can either be medical doctors or osteopathic physicians) be neither supported nor opposed by the Association, maintaining that all county health officers must be fully qualified and trained for this position.

The motion to adopt the recommendation of the Reference Committee carried.

Council on Scientific Activities

Recommendation No. 1—Expansion of J. Hillis Miller Health Center

It was pointed out by the Reference Committee that new funds have been obtained by the University of Florida for this program and the University has thanked the Association for its efforts. The Reference Committee recommended that Recommendation No. 1 of the Council on Scientific Activities be adopted.

It was adopted.

(See report of Council on Scientific Activities, page 32.)

Council on Allied Professions and Vocations

Recommendation No. 10

The Reference Committee recommended that Recommendation No. 10 of the Council on Allied Professions and Vocations be adopted.

It was adopted.

(See Report of Council on Allied Professions and Vocations, page 37.)

Recommendation No. 13

The Reference Committee recommended that Recommendation No. 13 of the Council be adopted.

It was adopted.

(See Report of Council on Allied Professions and Vocations, page 38.)

Recommendation No. 17

The Reference Committee recommended that Recommendation No. 17 of the Council be adopted.

It was adopted.

(See Report of Council on Allied Professions and Vocations, Page 38.)

Council on Medical Services

Recommendation No. 4

The Reference Committee recommended that Recommendation No. 4 of the Council on Medical Services be adopted.

It was adopted.

(See Report of the Council on Medical Services, page 40.)

Recommendation No. 9

The Reference Committee recommended an amendment to Recommendation No. 9 of the Council on Medical Services, by adding at the end of the recommendation the following statement: "and, further, that it be considered a prime legislative goal of the Association."

The amendment was adopted. Recommendation No. 9 of the Council on Medical Services was adopted as amended.

(See report of the Council on Medical Services, page 40.)

Recommendation No. 10

The Reference Committee recommended that Recommendation No. 10 of the Council be adopted.

It was adopted.

(See report of the Council on Medical Services, page 40.)

Report of Board of Governors

1970 House of Delegates Referrals

Licensure by Endorsement

The Reference Committee proposed an amendment to the recommendation of the Board of Governors pertaining to Licensure by Endorsement, by inserting "or the FLEX examination" (Federation Licensing Examination) after the words "the National Boards," and by changing the wording "five-year period" to read "eight-year period."

The amendment was adopted; the recommendation of the Board of Governors was adopted as amended.

(See Report of Board of Governors, page 46.)

Definition of Practice of Medicine

The Reference Committee recommended that the recommendation of the Board of Governors regarding the definition of the Practice of Medicine be adopted.

It was adopted.

(See Report of Board of Governors, page 46.)

Board Action No. 8

Comprehensive Health Planning

Upon recommendation of the Reference Committee, Board Action No. 8 was adopted.

(See Report of Board of Governors, page 47.)

Board Action No. 9

Legislative Objectives

Upon recommendation of the Reference Committee, Board Action No. 9 was adopted.

(See Report of Board of Governors, page 47.)

Board Action No. 15

Policy Statement on Medicaid

The Reference Committee recommended an amendment by inserting before the last phrase of this statement the following: "until the appropriations are exhausted."

An amendment was moved from the floor, to include "The Board of Governors is authorized by the House of Delegates to institute legal or other action, as feasible, to enforce these recommendations."

The amendment was adopted; the Reference Committee's amendment was adopted as amended, and the statement of the Board of Governors was adopted as amended.

(See Report of Board of Governors, page 47.)

Board Action No. 16

Redefinition of Chiropractic

As recommended by the Reference Committee, Board Action No. 16 was adopted.

(See report of Board of Governors, page 47.)

Board Action No. 17

Professional Liability

As recommended by the Reference Committee, Board Action No. 17 was adopted.

(See report of Board of Governors, page 47.)

Board Action No. 35

Abortion

The Reference Committee favored the continued effort of the Association to have a reasonable reform of Florida's abortion law, and recommended that Board Action No. 35 be adopted.

It was adopted.

(See Report of Board of Governors, page 48.)

Ad Hoc Committee on Drug Abuse

The Reference Committee recommended that Recommendation No. 1 of the Ad Hoc Committee on Drug Abuse be adopted.

It was adopted.

The Reference Committee recommended that Recommendation No. 2 of the Ad Hoc Committee on Drug Abuse be adopted.

It was adopted.

The Reference Committee had been informed that legislation pending in the Legislature concerning narcotics prescription program will probably not be enacted during this session, so that a decision by the House at this time is not vital. Therefore, the Reference Committee recommended that Recommendation No. 3 of the Ad Hoc Committee be referred to the Board of Governors for consideration, with the request that it instruct the Committee on State Legislation in time for a policy to be submitted for the next Legislative session.

The Speaker granted a request of a delegate for Dr. Robert P. Johnson, chairman of the Ad Hoc Committee on Drug Abuse, to be allowed the privilege of the floor to give background and explanatory information on the triplicate narcotics prescription program referred to in this recommendation of the Ad Hoc Committee.

Following discussion, the recommendation of the Reference Committee was adopted, and the

Recommendation No. 3 was referred to the Board of Governors.

**The Reference Committee recommended that Recommendation No. 4 be adopted.

It was adopted.

The Reference Committee commended the Ad Hoc Committee on Drug Abuse, and in particular the chairman, Dr. Robert P. Johnson, for its efforts, and the report of the Ad Hoc Committee on Drug Abuse was adopted as amended.**

**(This portion of the report was considered on Sunday during the Third House of Delegates; however, it is being recorded here for continuity and clarity.)

Ad Hoc Committee on Drug Abuse

ROBERT P. JOHNSON, *Chairman*

The Association's new Ad Hoc Committee on Drug Abuse, which was authorized by the House of Delegates in May 1970, was appointed in the fall of that year. The committee is of an interdisciplinary nature, being composed of attorneys, pharmacists, law enforcement personnel, educators, clergymen, physicians and others. As of this report, the committee has held three meetings: November 17, 1970, in Jacksonville; January 27, 1971, in Fort Lauderdale, and March 10, 1971, in Tampa. Another meeting is scheduled April 21 in Orlando.

Because of the pressing needs in combating the widespread drug abuse problem, the committee of necessity has moved at an accelerated pace. After attempting to determine the scope of the problem throughout the state and reviewing all ongoing programs and activities, the committee to date has focused attention upon the following areas:

(1) The training of school teachers at the elementary and secondary levels to improve drug abuse education in cooperation with all other concerned disciplines.

(2) Coordination of state agencies' activities and programs in the drug abuse field.

(3) Delay in justice in drug abuse cases.

(4) The need for more judicious prescribing by physicians of addicting and habituating drugs and the reduction of fraudulent prescriptions.

(5) The availability of facilities for identification of substances utilized in drug abuse.

(6) The need for education of physicians relative to the drug abuse problem by such means as seminars.

(7) The need for control of the sale of disposable syringes and needles and other drug abuse paraphernalia.

(8) The need for changes in the present state drug laws.

(9) The need for a new type of state facility for the voluntary treatment of youthful drug addicts.

The committee has undertaken several specific projects aimed at various parts of the areas previously listed. An educational exhibit for physicians has been applied for to be displayed at the Association's 1971 annual meeting. A recent survey of county medical societies revealed little interest in the committee's plans for a series of seminars and this possible project has temporarily been tabled. A commitment has been obtained for a desk reference for physicians on drug abuse to be published at state expense. The commlttee has reviewed and advised upon drug abuse measures being proposed for the 1971 legislative session. Subcommittees have been created and are working to develop, respectively, guidelines for handling drug problems in the schools and a new concept for management of youthful drug offenders.

RECOMMENDATIONS

1. That Section 398.09, Florida Statutes, relating to regulation of narcotic drugs, be repealed.
2. That the first possession of marijuana in the amount of five grams or less without intent to sell be made a misdemeanor rather than a felony in Florida to conform with new federal statutes.
3. [Not Adopted—Referred to Board of Governors.] That a triplicate narcotics prescription program for Class "A" narcotics patterned after the State of California's be endorsed for Florida.
4. That the Association's president be requested to write the Secretary of the Department of Health and Rehabilitative Services, with a carbon copy to the Governor, asking the designation of a representative from the Drug Abuse Office of the Department to serve as a continuing consultant to the ad hoc Committee on Drug Abuse.

The Speaker announced that the House would recess until Sunday morning at 9:00 a.m.

President Cook called for an expression of appreciation to Dr. Richard Hodes and Dr. David Lane for the work they are doing in the Legislature, and the House responded with applause.

The Second Meeting of the House of Delegates recessed at 5:48 p.m.



Immediate Past President, Dr. Henry J. Babers, Dr. Cook, Mrs. Babers and Mrs. Cook at the President's reception.



Dr. and Mrs. Floyd K. Hurt at the President's reception.



Dr. Floyd K. Hurt welcoming Dr. Ray E. Murphy Jr. and other guests at the President's reception.



Dr. Eugene G. Peek Jr. being congratulated on his colorful trousers by Dr. and Mrs. Cook at the President's reception.

Third House of Delegates

The third meeting of the House of Delegates convened at 9:00 a.m. on Sunday, May 9, 1971, in the Bal Masque Room of the Americana Hotel, Bal Harbour, Florida, with Dr. Charles K. Donegan, Speaker of the House, presiding.

Dr. Hendrix, Chairman of the Credentials Committee, reported 174 delegates registered, constituting a quorum, and moved that the House be seated. The motion carried.

Delegates

ALACHUA—John W. Andrews, Billy Brashear, Wilbur J. Coggins, George T. Singleton (Absent—William C. Ruffin Jr).
BAY—William D. Carter, William C. Roberts.
BREVARD—Donald Bryan, N. Frank Fain Jr., T. John Kaminski, Joseph C. Von Thron.
BROWARD—Robert L. Andreae, Miles J. Bielek, Robert J. Brennan, Russell B. Carson, J. Gordon McAllister, Ray E. Murphy, W. Dotson Wells, John I. Williams (Absent—Milton P. Caster, Paul E. Gutman, David C. Lane, John H. Mickley, Lees M. Schadel, Norman N. Wrubel).
CHARLOTTE—Robert Palmer.
CLAY—(Absent—William A. Mulford).
COLLIER—(Absent—Fred A. Butler, Nicholas Kalvin).
COLUMBIA—(Absent—Frank Adel).
DADE—William G. Aten, Jerome Benson, Morris Blau, Rufus K. Broadaway, Harvey Brown, Manuel Carbonell, Richard C. Clay, Francis N. Cooke, Vincent P. Corso, DeWitt C. Daughtry, Joseph Davis, Robert F. Dickey, L. W. Dowlen, Miguel Figueroa, Joseph Fitzgerald, M. Eugene Flipse, Marshall Hall, Henry Hardin, James J. Hutson, Paul Jarrett, Walter C. Jones, Walter Jones III, Robert Lee, Ronald Mann, Donald Marion, O. Ildefonso Mas, John D. Milton, Charles Monnin, Sheldon Munach, Jean J. Perdue, M. Murray Schechter, Robert Schiess, Daniel Seckinger, Everett Shocket, Chauncey Stone, Mario Stone, William Straight, Charles F. Tate, Maynard Taylor, Arthur W. Wood Jr., Nelson Zivitz (Absent—George Baldry, Jim C. Hirschman).
DESOTO-HARDEE-GLADES—Calvin W. Martin.
DUVAL—Clyde M. Collins, Emmet F. Ferguson Jr., John J. Fisher, Stephen P. Gyland, Karl B. Hanson, L. E. Masters, Thad Moseley, D. Darrell Phillips, Harry W. Reinstine Jr., John A. Rush Jr., Guy T. Selander (Absent—A. H. Wilkinson Jr.)
ESCAMBIA—Charles J. Kahn, T. J. Marshall, Philip B. Phillips, Lockland V. Tyler Jr.
FRANKLIN-GULF—Joseph P. Hendrix.
HIGHLANDS—Donald Hartwell.
HILLSBOROUGH—Richard H. Blank, Ernest R. Bourkard, Frank C. Coleman, Richard G. Connar, John C. Fletcher, Richard S. Hodes, Victor H. Knight, W. Mahon Myers, William W. Trice (Absent—Irving M. Essrig).
INDIAN RIVER—Charles C. Flood.
LAKE—J. Basil Hall, Thomas H. Nichols.
LEE-HENDRY—Larry Garrett, F. Lee Howington, Edward Salko.
LEON-WAKULLA-JEFFERSON — Nelson H. Kraeft, Robert N. Webster (Absent—E. G. Haskell).
MADISON—(Absent—William J. Bibb).
MANATEE—Irving E. Hall Jr. (Absent—Roger A. Meyer).
MARION—Henry L. Harrell, C. Brooks Henderson.
MONROE—Jaime M. Benavides.
NASSAU—Marshall Groover.
OKALOOSA—W. W. Thompson.
ORANGE—Axel W. Anderson III, Louis P. Brady, Norman F. Coulter, Truett H. Frazier, Paul C. Harding, Harold W. Johnston, Franklin B. McKechnie, Louis C. Murray, Edward W. Stoner, Thomas B. Thames.
PALM BEACH—W. F. Ande, Carl E. Andrews, Vernon B. Astler, Jerry F. Cox, Maximilian A. Crispin, James R. Forlaw, Bernard Kimmel, R. B. Moore Jr., H. John Richmond.
PANHANDLE—(Absent—Herbert E. Brooks).
PASCO-HERNANDO-CITRUS—Randall Jenkins.
PINELLAS—Joseph A. Ezzo, James C. Fleming, Allyn B. Giffin, David S. Hubbell, Jack A. MaCris, Donald G. Nikolaus, David T. Overbey Jr., Thomas M. Quebl, George H. Welch Jr., Walter H. Winchester, Rowland E. Wood.
POLK—James R. Boulware III, Thomas M. Caswall, J. Gerard Converse, John W. Glotfelty (Absent—Robert J. Pfaff, Angelo P. Spoto).
PUTNAM—Roy E. Campbell.
ST. JOHNS—W. W. O'Connell.
ST. LUCIE-OKEECHOBEE-MARTIN—Howard C. McDermid. Richard Q. Penick.
SANTA ROSA—(Absent—Claude J. Barnes).
SARASOTA—Samuel E. Kaplan, Franklin H. Pfeiffenberger, Karl R. Rolls, Millard B. White.
SEMINOLE—Luis M. Perez.
SUWANNEE-HAMILTON-LAFAYETTE — (Absent—Wilton Kane).
TAYLOR—Frank Scarvey III.
VOLUSIA—Bob Bullwinkel, William Eyster, W. H. Harrison, R. W. Snodgrass.
WALTON—(Absent—Thomas G. Spence).
COUNCIL ON SPECIALTY MEDICINE—Frederick C. Andrews, James D. Beeson, Jack H. Bowen, Andre S. Capi. John M. Hamilton, Samuel G. Hibbs, William T. Mixson, Sanford A. Mullen, Edward J. Sullivan Jr., Miles W. Thomley (Absent—West Bitzer, James W. Clower Jr., Robert E. Raborn, James M. Stem, Richard P. Thompson).
OFFICERS AND BOARD OF GOVERNORS—Henry J. Babers Jr., Jack Q. Cleveland, James T. Cook, James F. Cooney, William J. Dean, Richard C. Dever, Charles K. Donegan, Richard M. Fleming, Francis T. Holland, Floyd K. Hurt, Joseph G. Matthews, Eugene G. Peek Jr., James W. Walker, William M. C. Wilhoit (Absent—Franklin J. Evans).

The Speaker recognized distinguished guests from allied professions in attendance: Mrs. Elizabeth J. Lundgren, Miami, President, Florida Division, American Society of Medical Technologists; Helen P. Keefe, R.N., President, Florida Nurses Association; Mr. Richard Kurras, Vice President, Florida Chapter, American Physical Therapy Association; Mr. William F. Casler, St. Petersburg, President, Florida State Veterinary Medical Association; and Miss Eva Bacon, Jacksonville, President, Licensed Practical Nurses Association of Florida.

Dr. Robert C. Piper, Chairman, Committee on Golf, announced the winners of the golf tournament:

Low Gross Division: Champion—Dr. Henry Bryant, Miami
Runner-up—Dr. J. T. Sheldon, Lakeland
Third—Dr. R. C. Piper, Coral Gables
Fourth—Dr. W. P. Smith, Coral Gables

Low Net Division: Champion, Winner of Duval Golf Trophy—Dr. James Pringle, Coral Gables
Runner-up—Dr. Francis Cooke, Coral Gables
Third—Fred Harder—Miami
Fourth—John Hanni, Miami

Special Handicap Division: Champion, Dr. P. Palmisano, Del Ray

The Speaker announced that the By-Laws amendments adopted by the House the previous day would become effective upon adjournment of this House.

Continuation of

Report of Reference Committee No. IV
Legislation and Miscellaneous

Resolution 71-6
Chiropractic
Alachua County Medical Society

The Reference Committee proposed an amendment to Resolution 71-6, to be made in the "Resolved," deleting the last two words, "abolish chiropractic," and insert in their place "protect the public from bad effects of chiropractic."

The amendment was adopted.

Resolution 71-6 was adopted as amended.

Resolution 71-6

Chiropractic

Whereas, on December 28, 1968, the Secretary of the Department of Health, Education and Welfare delivered to the U.S. Congress a complete report regarding chiropractic which can serve as a guideline to other legislative bodies concerned with regulations of chiropractic practice; and

Whereas, the conclusions of this report are as follows:

"1. There is a body of basic scientific knowledge related to health, disease, and health care. Chiropractic practitioners ignore or take exception to much of this knowledge despite the fact that they have not undertaken adequate scientific research.

2. There is no valid evidence that subluxation, if it exists, is a significant factor in disease processes. Therefore, the broad application to health care of a diagnostic procedure such as spinal analysis and a treatment procedure such as spinal adjustment is not justified.

3. The inadequacies of chiropractic education, coupled with a theory that de-emphasizes proven causative factors in disease processes, proven methods of treatment, and differential diagnosis make it unlikely that a chiropractor can make an adequate diagnosis and know the appropriate treatment, and subsequently provide the indicated treatment or refer the patient. Lack of these capabilities in independent practitioners is undesirable because: appropriate treatment might be interrupted or stopped completely; the treatment offered could be contraindicated; all treatments have some risk involved with their administration, and inappropriate treatment exposes the patient to this risk unnecessarily.

4. Manipulation (including chiropractic manipulation) may be of valuable technique for relief of pain due to loss of mobility of joints. Research in this area is inadequate; therefore, it is suggested that research that is based upon the scientific method be undertaken with respect to manipulation."; and

Whereas, the recommendation of the report is as follows:

"Chiropractic theory and practice are not based upon the body of basic knowledge related to health, disease and health care that has been widely accepted by the scientific community. Moreover, irrespective of its theory, the scope and quality of chiropractic education do not prepare the practitioner to make an adequate diagnosis and provide appropriate treatment. Therefore, it is recommended that chiropractic service not be covered in the Medicare program."; Now therefore be it

RESOLVED, That the Florida Medical Association supports public dissemination of this report, and that the Florida Medical Association takes whatever steps are necessary to protect the public from bad effects of chiropractic.

Resolution 71-20
Air and Water Pollution
Polk County Medical Association

The Reference Committee recommended that Resolution 71-20 be amended by the addition of a second "Resolved."

The amendment was adopted; Resolution 71-20 was adopted as amended.

Resolution 71-20

Air and Water Pollution

Whereas, There are a number of measures now under consideration by the State legislature which would transfer

responsibilities from the State Division of Health to the Florida Department of Air and Water Pollution Control, and

Whereas, These responsibilities deal directly with the health of Florida's citizens, and

Whereas, The Florida Department of Air and Water Pollution Control employs no medical personnel in any capacity, let alone a position of leadership, and

Whereas, Matters that have to do with the control of communicable diseases, the health of the public, prevention of disease and the preservation of man's environment are a direct concern of physicians and related medical specialists, and

Whereas, Control of environmental programs which have a direct bearing on the people's health require an established, medically supervised network of services, and

Whereas, Such services are already available and effectively serving the State through the Division of Health and the County Health Departments, now therefore be it

RESOLVED, That the Florida Medical Association urges the Governor and the Legislature to assure proper medical supervision of vital health programs; such as Sanitary Engineering and Environmental Sanitation by retaining the controls of these programs within the Division of Health of the State of Florida where such activities have been functioning successfully for over 75 years; and be it

RESOLVED, That the Florida Medical Association suggests that the Legislature should appoint a special commission to study thoroughly the Department of Health and Rehabilitative Services and the Department of Air and Water Pollution Control for the purpose of determining what, if any, change in the organizational structure should be made in order to make both departments more effective.

Resolution 71-22
Kidney Dialysis
Dade County Medical Association

The Reference Committee reported that in its opinion the services referred to in Resolution 71-22 would be covered through the catastrophic care insurance program being proposed through the Medicredit program, and recommended that the resolution not be adopted.

A substitute for the recommendation of the Reference Committee was moved from the floor: ". . . that this is an urgent matter which would be covered through the catastrophic care insurance program being proposed through the Medicredit program, and that this Resolution be referred to the Board of Governors."

The substitute motion carried; Resolution 71-22 was referred to the Board of Governors.

Resolution 71-22

[Not Adopted—Referred to Board of Governors]

Kidney Dialysis

Whereas, Nineteen states provide more than 7 million dollars to support medically indigent patients receiving Renal Dialysis, and

Whereas, The Florida State Legislature does not contribute to the cost of Renal Dialysis, and

Whereas, The cost per patient for Dialysis in his home is approximately $12,000 the first year and $5,000 for each subsequent year, and

Whereas, The estimated number of patients after medical screening who require Dialysis is approximately 50 per million population, now therefore be it

RESOLVED, That the Florida Medical Association urge the Florida State Legislature to enact legislation providing financial support for this life supporting program for Florida citizens.

Dr. Harrison: "Your Chairman wishes to thank Drs. Robert L. Andreae, Allyn B. Giffin, Karl B. Hanson, and Walter C. Jones III, members of this committee, and the secretary, Miss Louria Neel, for their untiring efforts in the preparation of this report.

"Mr. Speaker, I move the adoption of the report of Reference Committee No. IV as a whole as amended."

The motion carried.

"Mr. Speaker, this concludes the report of Reference Committee No. IV."

Report of Reference Committee No. V
Medical Economics

Dr. Francis N. Cooke, Chairman, came forward to present the report of Reference Committee No. V, Medical Economics.

Council on Medical Economics

The Reference Committee recommended that the report of the Council on Medical Economics be adopted as printed.

It was adopted.

Council on Medical Economics

JACK A. MACRIS, *Chairman*

The Council met twice during the year at which time committee reports with recommendations were presented and voted upon. The committees' recommendations were submitted through the Council for final action by the Board of Governors.

Committee on Advisory to Blue Shield and Fiscal Intermediaries.—The committee met on two occasions this year, December 5, 1970, and February 13, 1971. In these meetings, the committee discussed in detail with the Blue Shield staff members the many problems in Blue Shield's role as Medicare, Part B carrier, administering Federal Programs (Title XIX).

The primary problems can be outlined as follows:

Liaison and Communications—Broad strides have been made to keep the members of the FMA informed of all activities of the Blue Shield Board. The committee commends the Blue Shield Board in its decision to submit to local county societies abstracts of the minutes of its meetings. A constant flow of correspondence has been circularized to FMA physicians explaining the methods of computation of usual and customary fees, verbatum SSA letters regarding regulation change and changes in policy of non-governmental Blue Shield contracts. The committee believes further efforts to improve and upgrade the staff and claims review personnel correspondence are needed and are being implemented. Unilateral and unreasonable changes in regulation by HEW has made communication at times very difficult. The committee feels that continued efforts by the Blue Shield Board to question and to attempt to reshape unreasonable regulation changes are commendable.

Peer Review—The committee has reviewed the development of the FMA Foundation Peer Review plan and commends the state and local committees in the effective implementation of this program. A major threat to this program is occurring in the U.S. Senate Finance Committee and SSA's request for information about doctors' practices based solely on dollar volume level and unilateral payment suspension before peer review is carried out.

Usual and Customary Fee Determination—The committee has studied in detail the recent fee changes affected by SSA regulations and commends the Blue Shield Board and staff in their efforts to resist this inequitable and unreasonable rape of the law as written. The changes should make every FMA physician question the wisdom of accepting assignments and also move to indoctrinate his patients into an understanding that Medicare fees as currently established are really indemnity type payments and not "usual and customary."

SSA Entry Into Medical Care Field—Restriction of nursing home visits and recurring difficulties in obtaining certification of needed ECF care are continuing threats to the free practice of medicine and should not be allowed to proceed unchallenged by the FMA and by the Blue Shield Board.

The February meeting of the committee was primarily a Blue Shield informational meeting. The purpose was to bring the committee members up to date on Blue Shield activities and current problems. The following items were discussed and received as information:

1. Summary of Blue Shield Board meeting
2. SSA's modified position on "more than reasonable charge"
3. Senate Finance Committee projects
 a. Payment suspension
 b. Peer review
4. Prevailing screens based on specialty practice
5. Fees
 a. Determination by percentile
 b. Current fee allowances
6. Medicaid
7. Medicare claims activity
8. National health policy
9. "The Many Myths of Medicare"—FMA *Journal* article
10. PSRO hearings
11. Current Procedural Terminology
12. Deferred compensation for physicians
13. Renal dialysis
14. Physician's assistants
15. CHAMPUS



Reference Committee V personnel were Drs. Francis N. Cooke, Joseph A. Ezzo, James R. Forlaw, William W. O'Connell and Louis P. Brady. Mary Tai White was recording secretary.

Committee on Relative Value Studies.—The committee has worked assiduously throughout the year on the later stages of a long-range project, authorized by the Board of Governors, which will furnish the physicians of FMA with a relative value manual based for the first time on fees charged for procedures and services in Florida. Following preparation in 1969-1970 of questionnaires for all medical specialties engaged in private practice in Florida and a pilot study in Orange County, questionnaires were sent to all private physicians in the summer of 1970 relating to fees commonly charged. An excellent response was received, and this information was subjected to careful analysis and organization by William Howard, Ph.D., Inc., the actuarial firm employed by FMA to assist the committee in preparing this data. On completion of this phase, it was apparent that the information available was adequate in most specialties, but not for certain procedures and services, and further short questionnaires followed in several specialties. Relative values have been determined and defined for most of the manual at this time, but a few difficult areas still remain. The committee is currently awaiting results of a detailed survey of plastic surgeon fees needed for accurate relative values in this specialty.

The work of the committee has gone somewhat slower than anticipated. However, approximately 6,000 procedures and services are involved in the new nomenclature taken from the 1970 Current Procedural Terminology of AMA. Individual consideration of relativity for the vast majority of these procedures is necessary to insure validity. At the present time, the committee does not feel that further spot surveys will be required although unforeseen areas of difficulty may arise.

While the new manual may not differ superficially from previous manuals, it will be the culmination of a vast amount of efforts used in survey design, preparation, executive and data evaluation, plus prepa ation of the manual. New Current Procedural Terminology nomenclature and appropriate coding will be used anticipating that the new manual will be part of a nationwide coding and nomenclature system.

Committee on Members Insurance.—The committee has not held a formal meeting this year. Historically, the greatest area of activity of this committee has been reviewing and assisting in problems specifically related to the Professional Liability Insurance Program. This function is now the responsibility of the Committee on Professional Liability. This year has seen very few, if any, problems in the other areas of the members insurance program. The committee will continue to work with the administrators of the insurance program to assure that we have the most up-to-date and comprehensive program available for the money invested.

Committee on Health Insurance.—The committee has not met during the year; however, the committee is pleased to report the local insurance review committees are apparently functioning as intended and that the State Committee continues to offer assistance when called upon.

Committee on Professional Liability.—The committee held one meeting during the year; however, due to a hurricane alert, members' attendance was less than anticipated. The meeting was designed as an orientation-organizational meeting and to this purpose it was carried out. Although the committee has not met formally since then, the chairman, on a number of occasions, met with administrators of the Professional Liability Program to discuss certain problems. The chairman has also consulted with the Director of the Department of Public Affairs on a number of occasions for the purpose of assisting in preparation of legislation which specifically evolves from the professional liability problem.

It is expected that the committee will soon be able to develop an expertise which will be of invaluable assistance in the legislative process.

Committee on Peer Medical Utilization Review.—The Committee on Peer Medical Utilization Review has held seven meetings this year, six of which have been two-day meetings and plans another meeting in April. The committee has been expanded and now consists of 11 members. It has become a finely tuned working organization. Records of the committee indicate that most, if not all, county medical societies have formed Peer Utilization Review Committees. The county society committees generally appear to be hesitant to become involved in the peer review process because of the lawsuit potential. The Association has suggested that county societies purchase coverage to protect the activities of this committee and assistance has been provided to those county societies requesting it. This still appears to be the major problem. As to active participation, it is hoped that the Florida Medical Foundation in its delibe ation with carrier will be able to provide some type of assistance in this area within the next year.

During the year, the committee has . . .

—concurred with county medical society findings in 37 cases.

—concurred with county medical society findings but changed for cause the percentage in four cases—two were reduced and two were increased.

—disagreed with county medical society findings and established, based on information, a percentage in 12 cases.

—heard 13 appeals, seven of which were appeals of county medical society findings, and six of which were appeals of state committee findings.

—found "no problem" in 11 cases.

—referred 10 cases back to the county medical society, one of them twice.

—accepted in four cases the report of the county medical society as interim reports and requested additional study by Blue Shield because of facts brought out during peer review.

—noted that predominant for peer review has been billings for routine pre- and post-operative care (24 such cases involved).

Committee on Hospitals and Extended Care Facilities.—The committee held one meeting this year on November 11, 1970, at FMA headquarters. The purpose of this meeting was to achieve approval of the model hospital staff bylaws and rules and regulations which were finally approved after many hours of review, change and diligent study. The need for these model bylaws has already been manifested and numerous copies sent out and several problems solved at the grass roots level by the use of these bylaws. This hopefully will obliterate such unpleasant situations as the one which developed in Punta Gorda.

The chairman attended meetings of the Board of Governors in Jacksonville and Ocho Rios, Jamaica. He also attended a workshop sponsored by the Commission on Professional Hospital Activities which dealt with computerization, retrieval and storage of hospital data which would assist physicians primarily in utilization, review and an updating of patient care, providing adequate statistical



Senator Barry A. Goldwater speaks at FLAMPAC luncheon.

review available through the PAS and MAT Programs. In addition, numerous minor problems were solved by letter or direct telephone communication by the chairman which did not necessitate action by the entire committee.

Committee on Computerization in Medicine.—The committee held one meeting on November 11, 1970, at the FMA headquarters in Jacksonville. Following the meeting, the chairman met again with Dr. Phillip Hampton, Mr. Joel Krinsky and Dr. Chuck Mead to investigate the possibility of a pilot program for computerization of medical data and billing in physicians' offices. It was felt by Dr. Hampton that a program of this type could help in data collection and processing as well as third party interest in collecting medical information at some savings to the patient and physician. The pilot program was to be further studied and outlined in writing by Dr. Hampton and Mr. Krinsky following which it will be considered by the entire committee and the Council on Medical Economics. Later another meeting was held where this problem was pursued further. The purpose of this meeting was to discuss the feasibility of the proposals put forth in the meeting of January 6, 1971, and to also discuss the development and structure of a medical data collection network in the State of Florida with a view toward developing a pilot program.

It was agreed that there was a need to create an effective health care information system which will reduce unneeded costs and increase the efficiency of health care financing management plans. Furthermore, this system should create a data base for various uses in the field of medicine. A series of primary, and secondary goals were established for the collection of this data—

A—Primary goals
1. To create a direct interface with third-party payers.
2. To implement improvement in management of third-party plans, and payment mechanisms.
3. To use this data to assist the physician with his accounts receivables function if the physician chose to contract with the vendor of such an accounts receivable package.

B—Secondary goals (made possible through the use of the terminal)
1. Create a centralized medical data bank with real time recording and recalling of patient history.
2. Interface with other computer aided medical systems.

The above goals should be modular in nature—i.e., while fulfulling the primary goal, the physician should be able to choose as many of the secondary goals as applicable to his mode of practice.

It would be the function of data collection center and the FMA Committee on Computerization in Medicine to specify only the needs of medicine in terms of services and information to be collected.

The financing of such a data center is at this point in time undeterminable. It is, until costs can be calculated, not feasible to say whether or not this data center should be run on a profit, non-profit, or foundation basis.

Control of such a center will be determined at such a time as costs and interested parties become available.

RECOMMENDATIONS

1. That the Committee on Relative Value Studies be afforded continued support by the Board of Governors in completion of the manual.
2. That the Committee on Relative Value Studies be instructed to develop plans for periodic revision of the manual as necessary to prevent obsolescence.

Report of Board of Governors

Referrals by 1970 House of Delegates

Pilots Insurance

The Reference Committee recommended that the portion of the Board of Governors' report dealing with the referral by the 1970 House of Delegates concerning participation in Association insurance programs for private pilots be adopted, and recommended that insurance, where available, should be made known to private pilots of the Association upon request.

The recommendation of the Reference Committee was adopted; the report of the Board of Governors concerning pilots insurance was adopted.

(See Report of Board of Governors, page 46.)

Resolution 70-14
Relative Value Guide

The Reference Committee recommended that the recommendation of the Board of Governors concerning Resolution 70-14, which was referred to the Board by the 1970 House of Delegates, be adopted.

The Board of Governors' recommendation was adopted.

(See Report of Board of Governors, page 46.)

Board Action No. 1

Workmen's Compensation

Upon recommendation of the Reference Committee, Board Action No. 1, was adopted.

(See Report of Board of Governors, page 46.)

Board Action No. 6

Florida Medical Insurance Trust

The Reference Committee recommended that Board Action No. 6 be adopted, and recommended in addition reconsideration for any applicants who did not originally enroll in this program.

The Reference Committee's recommendation and Board Action No. 6 were adopted.

(See Report of Board of Governors, page 46.)

Board Action No. 12

Amended Agreement with Blue Shield

Upon recommendation of the Reference Committee, Board Action No. 12 was adopted.

(See Report of Board of Governors, page 47.)

Board Action No. 18

Withholding of Medicare Payments to Physicians

Upon recommendation of the Reference Committee, Board Action No. 18 was adopted.

(See Report of Board of Governors, page 47.)

Board Action No. 21

Utilization Review

Upon recommendation of the Reference Committee, Board Action No. 21 was adopted.

(See Report on Board of Governors, page 47.)

Board Action No. 30

More Than Allowable Charge Resolution 70-10

The Reference Committee recommended that Board Action No. 30 be adopted, and recommended further that the Board of Governors make available a statement which may be used by individual physicians for patient information which would explain "More than Allowable Charge." This was believed necessary primarily because of the delay in the implementation by the Social Security Administration in changing the objectionable phrase "More Than Allowable Charge."

The Reference Committee's recommendation was adopted, and Board Action No. 30 was adopted.

(See Report of Board of Governors, page 48.)

Board Action No. 31

Physicians Image Survey

Upon recommendation of the Reference Committee, Board Action No. 31 was adopted.

(See Report of Board of Governors, page 48.)

Board Action No. 32

Social Security Medical Care Directives

Upon recommendation of the Reference Committee, Board Action No. 32 was adopted.

(See Report of Board of Governors, page 48.)

Board Action No. 33

Outpatient Insurance Payments

Upon recommendation of the Reference Committee, Board Action No. 33 was adopted.

(See Report of Board of Governors, page 48.)

Board Action No. 34

Blue Shield

Upon Recommendation of the Reference Committee, Board Action No. 34 was adopted.

(See Report of Board of Governors, page 48.)

Investment Plan Committee

The Reference Committee recommended that the report of the Investment Plan Committee be filed.

The Reference Committee's recommendation was adopted, and the report was filed.

Ad Hoc Committee on Workmen's Compensation

The Reference Committee recommended that the report of the Ad Hoc Committee on Workmen's Compensation be filed.

The Reference Committee's recommendation was adopted, and the report was filed.

Resolution 71-1
Blue Shield Newborn Care
Lee-Hendry, Okaloosa, Sarasota and Alachua County Medical Societies

Resolution 71-5
Blue Shield Newborn Care
Marion County Medical Society

Resolution 71-8
Newborn Hospital Care
Polk and Brevard County Medical Societies

Resolution 71-18
Blue Shield Newborn Care
Duval County Medical Society

The Reference Committee offered a substitute resolution for Resolutions 71-1, 71-5, 71-8, and 71-18, to be called Substitute Resolution 71-1, Blue Shield Newborn Care.

Substitute Resolution 71-1 was adopted.

Substitute Resolution 71-1

Blue Shield Newborn Care

Whereas, The birth rate in Florida has been well documented over the years, and

Whereas, The number of newborns that are born in hospitals is also known, and

Whereas, The physicians of the State of Florida care for these children and constantly hear the complaint that said physician care is not covered by most Blue Shield policies, while most other expenses of delivery care are covered, and

Whereas, such coverage for newborn is needed and would be in the best interest of citizens of Florida, now therefore be it

RESOLVED, That immediately all appropriate Blue Shield and Blue Cross contracts include newborn coverage and that this coverage be added to appropriate existing contracts.

Resolution 71-10
Peer Review
Broward County Medical Association

Resolution 71-27
FMA Participation in PRO or PSRO
Dade County Medical Association

The Reference Committee offered a substitute resolution for Resolutions 71-10 and 71-27, to be called Substitute Resolution 71-10, Peer Review.

Substitute Resolution 71-10 was adopted.

Substitute Resolution 71-10

Peer Review

Whereas, The Florida Medical Association has long endorsed tbe premise of Peer Review in all accredited hospitals and tbrough county and state medical associations, such as tissue committees, credentials committees, and boards of censors and etbics; and

Whereas, Such self-discipline has assured the consumer public of the best possible care; and

Whereas, Such committees have been composed of only physicians, responsible to local physician organizations which respect the confidentiality of medical records and the physician-patient relationship; and which are so flexible in design as to meet local needs and conditions and, also, exert functions of education and internal discipline; therefore, be it

RESOLVED, That the Florida Medical Association is unalterably opposed to enactment of PSRO-PRO legislation whicb fails to adhere to the tenets expressed above, and be it further

RESOLVED, That our Congressional representatives and tbe American Medical Association be informed of this position.

Resolution 71-11
Specialty Representation—
Hospital Governing Boards
Broward County Medical Association

The Reference Committee reported that the intent of Resolution 71-11 is already policy of this House of Delegates, as recorded in the proceedings of the 1969 House of Delegates and the 1970 House of Delegates, and recommended therefore that Resolution 71-11 not be adopted.

A substitute motion was made from the floor, replacing the three "Resolved" paragraphs of the original resolution with one "Resolved."

There was discussion; the substitute motion was adopted, and Resolution 71-11 was adopted in the substitute form.

Substitute Resolution 71-11

Medical Staff Representation—
Hospital Governing Boards

Whereas, The membership of the Florida Medical Association is deeply concerned witb tbe delivery of the finest bealth care in our hospitals, be it

RESOLVED, That the Florida Medical Association request, tbrough the American Medical Association, the Joint Commission on Accreditation of Hospitals to have as a requirement for accreditation, when legally permissible, that the medical staff be represented by a voting member or members on the governing board of the hospital.

Resolution 71-12
Professional Liability
Broward County Medical Association

The Reference Committee offered a substitute resolution for Resolution 71-12.

Substitute Resolution 71-12 was adopted.

Substitute Resolution 71-12

Professional Liability

Whereas, The Medical Profession is faced with one of the most serious crises of recent times in the unbridled and uncontrolled exposure of the profession to liability suits, be it

RESOLVED, That serious consideration be given to the organization of insurance coverage for all parties concerned, i.e., medicine, dentistry, nursing, hospital, etc., by tbe development of an insurance organization based on the principles of a participating membership in the organization, wbich has self-controls, self-arbitration and self-discipline similar to that which guided tbe development of sucb organizations as Blue Cross and Blue Shield. Be it further

RESOLVED, That the Florida Medical Association recommend to the AMA House of Delegates that it request its Board of Trustees to establish a crash program to gather all concerned parties who are affected by this adverse situation, in an effort to implement this recommendation.

Resolution 71-13
Blue Shield
Leon-Wakulla-Jefferson County Medical Society

Upon recommendation of the Reference Committee, Resolution 71-13 was adopted.

Resolution 71-13

Blue Shield

Whereas, Blue Shield of Florida, has for twenty-five years demonstrated efficiency of performance in the private sector of healtb insurance; and

Whereas, during this time Blue Shield has functioned cooperatively with the Florida Medical Association; and

Wbereas, we believe tbat it is of great importance in the future for tbere to be a close and harmonious working relationship between Blue Shield and Blue Cross, in the administration of professional and institutional services respectively; and

Whereas, we believe that Blue Shield and Blue Cross are capable of administering health care programs more efficiently than could be done by direct governmental agency administration; and

Whereas, we believe that it is in the best interest of not only the physicians of Florida, but the patients they serve, for Blue Shield to be involved in the administration of government health programs, both present and future; now therefore, be it

RESOLVED, That members of tbis House of Delegates of the Florida Medical Association do hereby pledge tbeir support to the continuation of the relationship between tbe Florida Medical Association and Blue Shield and do hereby express their confidence in both the Board of Directors and the Executive Staff of Blue Shield of Florida.

Resolution 71-16
Health Maintenance Organization
Volusia County Medical Society

The Reference Committee recommended that Resolution 71-16 be adopted, and further recommended that the Board of Governors form a committee to implement the intent of the resolution.

There was considerable discussion, and a motion to refer the resolution to the Board of Governors was adopted.

Resolution 71-16

[Not Adopted—Referred to Board of Governors]

Health Maintenance Organizations

Whereas, There has been for the past several years, an increasing concern and demand for a reorganization of the delivery of health care services, and

Whereas, President Nixon, in his recent special message on health delivered to the Congress, advocated the need for a greater development of a specific method of delivering health services, and

Whereas, The Department of Health, Education and Welfare has already committed itself to a substantial expenditure to provide assistance and encouragement for the establishment and expansion of Health Maintenance Organizations, and

Whereas, An Health Maintenance Organization is an organized system of health care which accepts the responsibility to provide or otherwise assure the delivery of an agreed upon set of comprehensive health maintenance and treatment services for a voluntarily enrolled group of persons in a defined geographic area and is reimhursed through a pre-negotiated and fixed periodic payment made hy or on behalf of each person or family unit enrolled in the plan, and

Whereas, It is anticipated, in the State of Florida, that a tremendous population increase of all age groups, as well as a greatly expanded tourist industry, will severely tax an already overburdened health delivery system, and

Whereas, Volusia County is certainly one of those areas which especially fulfills the geographical and enrollment criteria for development of an Health Maintenance Organization, and some members of the Volusia County Medical Society wish to explore the possibility for implementation of an Health Maintenance Organization, therefore be it

RESOLVED, That the Florida Medical Association express its agreement with the concept of a need for some changes in the delivery of health care services, and that the Florida Medical Association provide ethical guidelines consistent with legal aspects where appropriate and pertinent.

Resolution 71-17
Medicaid
Duval County Medical Society

The Reference Committee recommended amendment of Resolution 71-17, by the addition to the end of the first "Resolved" the phrase "and punitive to the indigent due to the effect of driving physicians from predominantly indigent areas," and by the deletion of the entire second "Resolved."

The amendment was adopted; Resolution 71-17 was adopted as amended.

Resolution 71-17

Medicaid

Whereas, The Florida Medical Association encouraged its membership to participate in the Medicaid Program at its inception in January 1970, as a show of good faith, despite apparent inadequate funding; and

Whereas, The Legislature of the State of Florida in special session in 1971, did appropriate emergency funds for this program, and

Whereas, The hudgetary department, despite the increased funding, has arhitrarily continued to reimhurse Florida physicians at a rate of 60% of the 75th percentile of their usual and customary fee, therefore be it,

RESOLVED, That this association condemn the policy of reimbursement at any level less than the other services are reimbursed as discriminatory to the physicians of Florida and punitive to the indigent due to the effect of driving physicians from predominantly indigent areas.

Resolution 71-19
Blue Shield Fee Allowances
Dade County Medical Association

The Reference Committee recommended that the last phrase of the last paragraph of the resolution, "and for Blue Shield to immediately desist from calling itself the Doctors' Plan" be deleted.

The amendment was adopted; Resolution 71-19 was adopted as amended.

Resolution 71-19

Blue Shield Fee Allowances

Whereas, Blue Shield advertises as the Doctors Plan and in so doing implies to the patient that whatever fee Blue Shield arhitrarily sets is proper hy virtue of its being the Doctors Plan, and

Whereas, There is now much doubt that Blue Shield is conducting its husiness in a manner acceptahle to the majority of physicians, and

Whereas, Blue Shield writes to patients that fee allowances hy Blue Shield are reasonahle and customary and in so doing infers to the patient that a higher fee is automatically unreasonahle, and

Whereas, Blue Shield has informed physicians repeatedly that this unnecessary and malicious policy would be stopped at once; however, Blue Shield has persisted in disrupting the doctor-patient relationship and damaging the physician's reputation hy implying that a doctor has over-charged when a court of law is actually the only party to make such determination, now therefore be it

RESOLVED, That the Florida Medical Association and the American Medical Association take the necessary steps for Blue Shield to stop these practices at once.

Resolution 71-21
Uniform System of Coding and Nomenclature
Robert E. Raborn, *Delegate*

The Reference Committee recommended an amendment in Resolution 71-21, by changing in the first paragraph the words "System of Coding and Nomenclature" to "Current Procedural Terminology."

The amendment was adopted; Resolution 71-21 was adopted as amended.

Resolution 71-21

Uniform System of Coding and Nomenclature

Whereas, The 1970 Florida Medical Association House of Delegates instructed Blue Shield of Florida to adopt the AMA Current Procedural Terminology, second edition, as the universal system for description of medical services, and

Whereas, Blue Shield of Florida has not implemented the above resolution, 70-28, and, furthermore, has *no* system of coding non-surgical medical procedures, and

Whereas, The National Association of Blue Shield Plans now approves the American Medical Association's Current Procedural Terminology for local plan requirements, now therefore be it

RESOLVED, That the 1971 Florida Medical Association House of Delegates reaffirms the Resolution 70-28 and again instructs Blue Shield of Florida to adopt the American Medical Association's Current Procedural Terminology, second edition, as the universal system for description of medical services.

Resolution 71-23
Peer Review Procedure
Dade County Medical Association

The Reference Committee reported that it had been brought out in the Committee's hearing that statistically valid sampling referred to originally in this resolution is currently being obtained. It was the Committee's opinion that once the backlog (dating from 1966) of peer review cases is caught up, only a few cases will remain for review beyond one year's time. It was also the Committee's opinion that appropriate channels as called for in the resolution exist at the present time and are being utilized.

Therefore, the Reference Committee recommended that Resolution 71-23 not be adopted.

Resolution 71-23 was not adopted.

Resolution 71-24
Medicare Program Benefits
Dade County Medical Association

The Reference Committee recommended that Resolution 71-24, Medicare Program Benefits, be referred to the Board of Governors.

The recommendation of the Reference Committee was adopted, and Resolution 71-24 was referred to the Board of Governors.

Resolution 71-24

[Not Adopted—Referred to Board of Governors]

Medicare Program Benefits

Whereas, Under Medicare Part B of the Social Security Act, Insurance Companies, Corporations and Individuals who have incurred medical bill responsibility as a result of liability can have these paid by Medicare, and

Whereas, This Medicare program should be utilized for those eligible for its benefits and not for relief of defendant Carriers, Corporations or Individuals, and

Whereas, People provided for under various Workmen's Compensation Laws are not eligible for Medicare benefits, therefore be it

RESOLVED, That the Florida Medical Association go on record favoring immediate plugging this inequitous loophole in the Medicare Law which permits such as mentioned from escaping their due responsibility when liable, and be it further

RESOLVED, That the Senators and Congressmen from the State of Florida be promptly informed of the sense of this resolution so that legislative action may be initiated for preventing this drain on the Medicare program.

Resolution 71-25
Medicare: Ostomy Irrigation Equipment
Dade County Medical Association

The Reference Committee recommended that Resolution 71-25 be referred to the Board of Governors for referral to the proper study committee.

The recommendation of the Reference Committee was adopted; Resolution 71-25 was referred to the Board of Governors.

Resolution 71-25

[Not Adopted—Referred to the Board of Governors]

Medicare: Ostomy Irrigation Equipment

Whereas, The Medicare law does not reimburse ostomy patients for irrigation equipment necessary in the management of ostomies, and

Whereas, The Medicare law apparently classifies these as medical supplies not covered under the Medicare program when purchased by the beneficiary from a supplier, and

Whereas, This oversight deserves correction, permitting refund to the patients for these necessary medical expenses; now therefore be it

RESOLVED, That the Florida Medical Association make such a recommendation to the American Medical Association and to the United States Legislature that irrigation equipment for ostomies be reimbursed by Medicare.

Resolution 71-26
Punitive Measures Against Members
Dade County Medical Association

The Reference Committee reported that it had found Resolution 71-26 unclear and not self-explanatory, and furthermore, that no testimony or discussion was presented to the Committee to assist in its deliberations. Therefore, the Reference Committee recommended that Resolution 71-26 not be adopted.

Resolution 71-26 was not adopted.

Dr. Cooke: "Mr. Speaker, I wish at this time to express my gratitude to the members of the Committee for their patience and perspective: Drs. James R. Forlaw, Joseph A. Ezzo, William W. O'Connell, and Louis P. Brady; and our many thanks to our secretary, Mary Tai White, for a job well done.



Mrs. Spanjers presents a check to Dr. Eugene G. Peek Jr. from the proceeds of the Woman's Auxiliary Boutique for the Auxiliary special fund in the Florida Medical Foundation.

"I move that the report of Reference Committee No. V be adopted as a whole as amended."

The motion carried. "Mr. Speaker, this completes the report of Reference Committee No. V."

The Speaker recognized Mrs. Arnold J. Spanjers, President of the Woman's Auxiliary to the Florida Medical Association.

Mrs. Spanjers stated that the Association's Executive Committee had given specific direction for projects to which it wished the Auxiliary to give attention during the year. Among these were raising funds for the Florida Medical Foundation and assistance with the development of the History of Medicine Museum at St. Augustine.

Mrs. Spanjers presented to Dr. Peek, President of the Florida Medical Foundation, a check for over $500, representing receipts from the "Boutique" held during the annual meeting, for the Auxiliary's fund for destitute physicians and their families.

To Dr. Cook, as President of the FMA, Mrs. Spanjers presented a check in the amount of $525, proceeds from the 54 entries in the Art Show, for the History of Medicine Museum.

Elections

President-Elect

The Speaker opened the floor for nominations for the office of President-Elect of the Association for 1971-72.

Dr. Jack A. MaCris, Pinellas County, placed in nomination the name of Dr. William J. Dean, of St. Petersburg.

Dr. Dean's nomination was seconded by Dr. John Rush, Duval; Dr. William Trice, Hillsborough; Dr. W. Dean Steward, Orange; and Dr. W. Merrill Wilhoit, Escambia.

Dr. Donald Marion, Dade County, placed in nomination the name of Dr. Richard M. Fleming, of Miami.

Dr. Fleming's nomination was seconded by Dr. Lockland Tyler, Escambia; Dr. Emmet Ferguson, Duval; Dr. Russell Carson, Broward; Dr. Carl Andrews, Palm Beach; and Dr. William C. Roberts, Bay.

Nominations were closed, and the vote was by secret ballot with the Credentials Committee serving as tellers for the House.

The Speaker announced that Dr. Dean had been elected President-Elect. Dr. Dean was escorted to the rostrum by Dr. Jack MaCris and Dr. Rowland Wood.



Dr. William J. Dean, newly-elected President-Elect, being escorted to the rostrum by Drs. Jack A. MaCris and Rowland E. Wood.

Dr. Dean: "Thank you very much. I will do my best to carry out the wishes of this body."

Vice-President

The floor was opened for nominations for the office of Vice President.

Dr. Robert J. Brennan, Broward County, nominated Dr. Ray E. Murphy Jr. The nomination was seconded by Dr. Clyde Collins, Duval, and Dr. Robert Lee, Dade.

There were no further nominations; the Secretary was instructed to cast a unanimous ballot for Dr. Murphy.

Speaker of the House

President Cook assumed the chair and opened the floor for nominations for the office of Speaker of the House.

Dr. David Hubbell, Pinellas County, nominated Dr. Charles K. Donegan, St. Petersburg. The nomination was seconded by Dr. Wilhoit, Escambia and Dr. Trice, Hillsborough.

Nominations were closed and a unanimous ballot cast for Dr. Donegan.

Vice Speaker

Nominations for the office of Vice Speaker were called for.

Dr. Vincent Corso, Dade County, nominated Dr. Franklin J. Evans, Coral Gables. The nomination was seconded; nominations were closed and a unanimous ballot cast for Dr. Evans.

Secretary-Treasurer

The Speaker called for nominations for the office of Secretary-Treasurer.

Dr. Harry Reinstine, Duval County, nominated Dr. James W. Walker, Jacksonville, for re-election as Secretary-Treasurer.

The nomination was seconded by Dr. James Stem, Pinellas County; nominations were closed and a unanimous ballot cast for Dr. Walker.

Judicial Council

The Speaker called to the House's attention that the By-Laws which would go into effect at the close of this session required that members of the Judicial Council be elected by the House of Delegates upon nominations by the Board of Governors. He announced that under this new requirement, those nominated must have been members of the Association for at least ten years and their nomination must carry the concurrence of their county medical societies.

The Board of Governors' nominations for election to the Judicial Council, to be effective upon adjournment of this House of Delegates in compliance with the By-Laws which will become effective at the same time, were read, and were elected by unanimous vote of the House:

Vincent P. Corso, M.D., At Large (Five year term) 1976
William W. Thompson, M.D., A (Four year term) 1975
James A. Winslow Jr., M.D., B (Three year term) 1974
John J. Cheleden, M.D., C (Two year term) 1973
Nelson Zivitz, M.D., D (One year term) 1972

AMA Delegates

The Speaker called for nominations for election of AMA Delegates and alternates for two year terms beginning January 1, 1972, and expiring December 31, 1973.

The first vacancy for AMA Delegate was for the expiring term of Dr. Robert E. Zellner. Dr. Paul Harding of Orange County nominated Dr. Zellner for re-election to this position. The nomination was seconded by Dr. Rowland Wood of Pinellas County. Nominations were closed, and Dr. Zellner was unanimously re-elected.

It was announced that the current alternate Dr. Ralph Jack, did not wish re-election; and the Speaker called for nominations for the position of alternate AMA delegate for Dr. Zellner. Dr. Arthur Wood of Dade County nominated Dr. James T. Cook for alternate delegate. The nomination was seconded by Dr. Frederick Andrews of Lake County and Dr. Herbert Brooks of Panhandle Society. Nominations were closed, and Dr. Cook was unanimously elected.

The second AMA delegate vacancy was for the expiring term of Dr. Burns A. Dobbins. Dr. Paul Gutman of Broward County nominated Dr. Dobbins for re-election. The nomination was seconded by Dr. Maximilian Crispin, of Palm Beach and Dr. William W. Thompson of Okaloosa. Nominations closed and Dr. Dobbins was unanimously re-elected.

The Speaker called for nominations for alternate for Dr. Dobbins. Dr. William Straight of Dade County nominated Dr. Eugene G. Peek Jr. for re-election as alternate; a unanimous ballot was cast for Dr. Peek.

The Speaker called for nominations for a new sixth AMA delegate, to serve for the remainder of the current calendar year, May 9 through December 31, 1971, to which the FMA had become entitled on January 1, 1971, when its membership in the AMA exceeded 5,000.

Dr. Thad Moseley, Duval County, placed in nomination the name of Dr. Rufus Broadaway, of Miami. The nomination was seconded by Dr. Francis C. Coleman, Hillsborough; Dr. Richard C. Clay, Dade, and Dr. J. Gerard Converse, Polk. Nominations were closed, and Dr. Broadaway was unanimously elected.

The Speaker asked for nominations for alternate delegate for Dr. Broadaway.

Dr. Louis Murray, Orange County, nominated Dr. Thomas B. Thames, of Orlando, for the position of Dr. Broadaway's alternate. Dr. Thames' nomination was seconded by Dr. Donald Nikolaus, Finellas County and Dr. Henry Harrell, Marion County.

Dr. Philip Phillips, Escambia County, nominated Dr. Charles J. Kahn, Pensacola, for the position of Dr. Broadaway's alternate. The nomination was seconded by Dr. Murray Schechter, Dade County.

Nominations were closed, and by secret ballot, Dr. Thomas Thames was elected as alternate AMA delegate for Dr. Broadaway.

The floor was opened for nominations for the alternate for Dr. Jere Annis, which was left vacant when Dr. Broadaway was elected as AMA delegate.

Dr. Samuel Hibbs, Hillsborough County, nominated Dr. Richard G. Connar to complete the unexpired alternate term. The nomination was seconded by Dr. Thomas M. Caswall, Polk County, Dr. Hubbell and Dr. Murray.

Dr. Murray Schechter, Dade County, nominated Dr. Charles J. Kahn to the alternate position.

Nominations were closed, and by secret ballot, Dr. Richard G. Connar was elected as alternate delegate for Dr. Annis, to complete the term expiring December 31, 1972.

By unanimous vote of the House, the terms of Dr. Broadaway and Dr. Thames as AMA delegate and alternate delegate were extended to a full two-year term beginning January 1, 1972 and expiring December 31, 1973, provided the FMA is still entitled to six delegates to the AMA during those years.



Dr. Cook welcomes Senator Barry A. Goldwater, FLAMPAC guest speaker.



Dr. Hurt presenting Mrs. Cook with Dr. Cook's photograph.



Dr. Hurt receives the President's plaque from Dr. Cook.

Committee on Membership and Discipline

The Speaker referred the House to the nominations for election to the Committee on Membership and Discipline as submitted by the Board of Governors in its report, and asked for additional nominations from the floor.

There were no additional nominations; the nominees submitted by the Board of Governors were unanimously elected to the Committee on Membership and Discipline (See report of Board of Governors, page 48.)



Dr. Cook receives the Past President's pin from Dr. Hurt.

Installation of Officers

Dr. Cook presented the President's Gavel and Certificate to Dr. Hurt, incoming President.

Dr. Hurt presented Dr. Cook with the Past President's pin, and asked Mrs. Cook to come to the rostrum. "I felt this should have been given to you last year, Lillian, so you would have it while he was away so much during the year," Dr. Hurt told Mrs. Cook, presenting her with the portrait of Dr. Cook which had hung in the Board Room at the FMA headquarters office during the past year.

Mrs. Emmet F. Ferguson Jr., President of the Woman's Auxiliary to the Duval County Medical Society, was recognized and presented a red carnation to Dr. Hurt, "as a token of our pride in your being President and our gratitude for all your help."

Dr. Cook introduced his family: His wife, Lillian; his son and wife, Dr. and Mrs. James T. Cook III; his daughter and husband, Mr. and Mrs. Frank E. Bowers; his daughters, Lillianette and Carol; his mother, Mrs. James T. Cook Sr., and his office nurse, Mrs. Hamilton.

Dr. Hurt introduced his wife, Veronna.

Dr. Hurt: "The policy of the Florida Medical Association is set by the House of Delegates. The Board and I will, in the coming year, attempt to do everything you have asked us to do. We will need help, and I have excellent committees and councils appointed. Please let us know if there is anything we can do for you."

The Speaker read a telegram from Dr. Evans, Vice Speaker, thanking the House for its expression of good wishes in his illness.

Dr. Hurt announced the membership of the new Board of Governors to serve during the coming year, and announced the Board's meeting immediately upon adjournment of the House.

The 1971 House of Delegates adjourned at 11:20 a.m.

President, Woman's Auxiliary to the FMA, Speaks

Mr. Speaker, Mr. President, Mr. Executive Vice President, members and guests: You know, I've known for a long time that I would address this august body at sometime during the convention and it's a very unique privilege for a woman. It's one not given to many. So in thinking about coming to you today, knowing that I would have a captive audience of males, be the envy of every woman at this convention, I wanted to bring you a message that would mean something or some worthy thoughts that I might leave you with.

I was asked to keep my remarks brief and this is very difficult because, number one, I'm a woman, but most important of all I want to convey to you the love and the devotion of 3,000 outstanding women in the State of Florida. I could demonstrate this devotion by telling you of the many wonderful things that they have done in your name but time is of the essence and if you want to know about them we'll happily give you a convention reports book. I rather feel that I have the responsibility to stand before you and bring you some of our philosophy. I would rather stand here today and tell you of what I think our responsibility is to each other—man to woman, doctor-husband to doctor's-wife, members of the Florida Medical Association to its Auxiliary.

You know this is a wild and kooky world we're living in. Years ago, a woman definitely had her place, and so did the man. The niceties of opening the door for her, guiding her gently by the arm or just plain taking care of her have left us in this busy, hectic pace we now maintain. Oh, we still like our freedom, but there never will replace between a man and woman, the feeling of the man being upper and the woman just one step below; and, gentlemen, no matter what the Women's Lib say we really like it that way.

As for the relationship between doctor-husband and doctor's-wife, I think of all the marriages on earth—this is perhaps one of the most trying, one of the most difficult. So often you find us the plumbers, the gardeners, and certainly we're the chauffeurs with the children. Too often, much too often, we're the sole disciplinarians, and too often you're away from home when you're really needed there, but this is because of the nature of your art of healing and it's no one's fault. You chose to go this route; and we chose to go it with you, and as a result we bear these added responsibilities happily.

As far as the FMA and the Woman's Auxiliary is concerned, we think you've finally awakened to the fact that, man, we're alive, and that we can do lots for you. We think you owe us recognition. We think you owe us a chance to stand by your side in medicine's struggle to remain free. We think you owe us the information on community health problems because you're really too busy to take care of them by yourselves; and too long community health problems have been taken care of by others than the medical profession. Long ago you should have sent us out to work for you. You've done it of late, and I think you realize what a good job we've done for you and what good public relations we are.

Our responsibility in all three areas is to love you, to love your profession, and to stand tall for it and I rather think it is our position to stand up and fight for you in a hostile world that is trying to downgrade you and your profession; and, I think if you will listen just once, you will know that we have been doing just that.

In an earlier speech I made a statement and a friend, a very dear friend, said, "Bennie, tell it again," so I'm going to: You know you've made us number one in your lives by marrying us. At home, there is nothing you don't discuss with us. You place your most precious commodity, your children, in our hands to raise, and you ask and seek our advice freely. But—get us together here as an auxiliary, and heavenly days, all of a sudden you'd think we have bubonic plague. Why, you wouldn't touch us with a ten foot pole! Oh, you congratulate us on our little projects, pat us on the 'you know where'; and then hope and pray we'll disappear. But you know we're not going to because we think you really need us; and I don't think for once that you really want us to go away. So I see the relationship between the medical societies and the auxiliaries of the state growing closer and closer and all I can say, gentlemen, is, I think we've had a love affair.

Presented before the First House of Delegates, Annual Meeting of the Florida Medical Association, May 5, 1971.

We had a love affair going individually, now we have a love affair going together, for you know where to go for help, and believe me doctors, no one is more on your side than the auxiliaries in the State of Florida.

Now I must leave you. From all of us we wish you a well-run, a fun-filled convention, an orderly and a happy House of Delegates.

You know for once we have something very controversial to bring before our house—we want to raise the dues. And my last and my only request of you, gentlemen, is go on back to your rooms and tell those delegates who are coming to our convention to raise them.

Gentlemen, my blessings and my greetings from all the 3,000 members of the Florida Medical Auxiliary.

Thank you.

BENNIE SPANJERS (MRS. ARNOLD J.)

WINTER HAVEN



Bennie Spanjers (Mrs. Arnold J.) presents President's pin to Mrs. Wesley S. Nock, newly-inaugurated President, Woman's Auxiliary to the FMA.



(From left to right) Mary Ann Mathews (Mrs. W. H.), Jacksonville; Ruth Henderson (Mrs. C. Brooks), Ocala; Ann Murphy (Mrs. Ray E.), Pompano Beach; Necie Olsen (Mrs. Julian Jr.), Gulf Breeze; Barbara Hoff (Mrs. Theodore), Orlando; Bonnie Glotfelty (Mrs. John W.), Lakeland. These costumes represent a few of the many projects individual counties worked many long and productive hours on.


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Although not all clinicians agree on the value of vasodilators in vascular disease, sever investigators[1-4] have reported favorably on the effects of isoxsuprine. Effects have been der onstrated both by objective measurement[2,4] and observation of clinical improvement.
Indications: Cerebrovascular insufficiency, arteriosclerosis obliterans, diabetic vascul diseases, thromboangiitis obliterans (Buerger's disease), Raynaud's disease, postphlebi conditions, acroparesthesia, frostbite syndrome and ulcers of the extremities (arteri sclerotic, diabetic, thrombotic). Composition: VASODĪLAN tablets, isoxsuprine HCl 10 m and 20 mg. Dosage: Oral—10 to 20 mg. t.i.d. or q.i.d. Contraindications and Caution There are no known contraindications to recommended oral dosage. Do not give imm diately postpartum or in the presence of arterial bleeding. Side Effects: Occasional pa pitation and dizziness can usually be controlled by dosage reduction. Complete deta available in product brochure from Mead Johnson Laboratories. References: 1. Clar son, I. S., and LePere, D. M.: Angiology *11*:190-192 (June) 1960. 2. Horton, G. and Johnson, P. C., Jr.: Angiology *15*:70-74 (Feb.) 1964. 3. Dhrymiotis, A. D., and Whittier, J. R.: Curr. Ther. Res. *4*:124-128 (April) 1962. 4. Whittier, J. R.: Angiology *15*:82-87 (Feb.) 1964.

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Editorial

Of Life and Death and Old Friends

Last night I sat with an old friend while she lied. I did this partly because I was her doctor, partly because she was my friend, and partly because I wanted to do this. In life, this lady was a clerk who had worked for years on the wards of our hospital. Over these years I had come to know and love her and her family. We had shared many long days, many trials, worries, patients, and friends. We had shared good times and bad. Out of these years came a close friendship and respect.

When she became ill she came to me and I operated on her, but it was too late. She knew and understood this but I felt helpless and useless in my efforts of help to her, my friend and comrade. With all my high powered training and knowledge, all I could offer her was a little morphine and my sympathy. When she became bedridden, I made house calls for the first time in my professional life, but again, all I could really offer was my presence and encouragement. This seemed to be all she wanted. Her family, children, and husband were about, knowing and helping but not fearing the death of this very ill lady.

One day a couple of weeks ago, on one of my visits, she told me that she had accepted the fact that she was going to die. She had told her family and they had accepted it. She was comfortable, in her own bed, in her own home, with her family and friends about her. From that time on she hardly seemed to know me, but I continued to visit her. Perhaps, now, I needed her. Last night she died; not in a sterile hospital room isolated from home, family and friends, and attended by strangers; but in her own bed, in her own home, with her loved ones, and her doctor beside her. Perhaps we needed to be there more than she needed us.

James H. Corwin, M.D.
Jacksonville Beach

This Issue

According to some, this issue of the Journal is more widely read than any of the other eleven. And in a way, it is a tribute to our executive vice president, Harold Parham and his efficient office staff, those hard-working secretaries who add such good looks to our annual meeting while taking down all that is said at the reference committee meetings and in the House of Delegates. The one person ultimately responsible to see that this is all correctly put into manuscript form is Mrs. Wanda Bain, Girl Friday to Mr. Parham. She puts in hours and hours taking shorthand, reading and rereading page after page, seeing that it all makes sense and is what each speaker intends to say.

At the Board of Governors meeting last fall, it was approved that this issue be made as concise, as factual and as informative as possible. Extraneous dialogue not contributing to the meaning of the discussion was to be deleted; nevertheless, since this issue is for the education and information of all members, including those who attended the meeting as well as those who did not, it was argued that this issue should not be dull but interesting and readable. To sum it all up, it's impossible to estimate the manhours, inspiration, enthusiasm and effort expended by FMA members in producing these resolutions, actions, opinions and decisions. Representing you; the delegates, ever mindful of improving the standards of medical care, were cognizant that they had a mandate to perform in the best interest of all parties concerned.

And finally, as one purpose of this issue is to serve as an official record of the affairs of the Association, here's preserving for all time, our strivings, our dreams and our mistakes, but no regrets.

C.M.C.

Dean's Page

Editor's Note: This is a feature, beginning with the May issue, which will add one more chore to the already overworked physician heading each of our medical schools. This will be a monthly page to which they have agreed to contribute at quarterly intervals in order to improve communications between our centers of learning and the practicing physicians. It is hoped that this will work advantageously to all concerned.

Balance in Medical Education

Donn L. Smith, M.D.

During the past four years almost every institution devoted to medical education has experienced significant problems related to the maintenance of a properly balanced program. For many years, three basic program components have been considered by medical educators as an essential triad upon which rest major institutional goals and objectives. This triad included education, research and patient care. During the past 25 years, because of substantial and ever-increasing funding made available by the federal government for research and research training, the research portion of the triad has assumed a very dominant position. Faculty appointments, academic promotions and status, as well as financial rewards have, for the most part, become highly visible fruits of individual and departmental research activities. In addition, the reputation of many institutions has become almost solely a function of the research programs conducted within the institution. The parameters of medical school administration, judgment and decision have been conditioned in part by circumstances concerning the dollar value and number of research grants, the volume of publications, membership on national level, scientific peer groups and the sheer size of a given research program. Space assignments within the school, teaching obligations and committee functions were, in many instances, almost totally related to research programs and the needs related to such programs. Justification for this growing imbalance was provided by certain spin-off factors of some importance. Some educational programs were benefited in a number of ways. Faculty size was increased and a great deal of intellectual stimulation was brought to the institution by active and productive research operations. Benefits to medical science are manifest and have resulted in great improvement in many aspects of the practice of medicine. As we all know, the other two parts of the triad, education and patient care, did not develop in an equivalent way. Curricula remained static, the indigent patient continued to be the basis for the patient care laboratory and was handled pretty much as always. Educational programs were dependent upon medical faculty partially or wholly supported by research funds and with understandable major obligations in terms of time and effort relative to their research grants. Even more importantly, the individual's primary interest, and a significant portion of his intellectual energy was often research-oriented, with teaching and patient care relegated to the area of necessary but bothersome ancillary tasks. As serious imbalances were created, it is not surprising that teaching and patient care sometimes receded in quality.

Coincidental with a recent and significant reduction in research support, socioeconomic pressures of great proportions are developing in the area of patient care and medical service in relation to the institutional responsibilities. Major demands are in the making for premedical service expended as patient care. Medical schools are being challenged, berated, and interrogated relative to their role in the provision of health care within their communities. The schools of medicine have long engaged in medical service as an integral part of their educational programs. To date, this service has been rendered simply as an exercise in the acquisition of teaching materials based on the existence of a medically indigent population in the near vicinity of the teaching hospital. At this time, we must face up to the difficult problem of which services and how much service is to be required from the medical school as a community function. It is certain that major changes are in the offing, and the way in which we produce medical service and the quality of such service rendered must be given serious and careful consideration.

Dr. Smith is Director of the Medical Center and Dean of the College of Medicine, University of South Florida, Tampa.

The pertinent question concerns the relationship between our major and consuming dedication to research and the new forces at work. Will the schools of medicine now engage in an over-balanced posture towards medical service? There is little doubt that substantial amounts of federal funding will be available. What must be our response to the combination of cash and public pressure? Whatever the outcome, the third important and frequently forgotten component of our activity, that is education, continues to be relegated to a subsidiary role, this time behind medical service. As we strive to maintain a substantial and necessary research effort and begin to undertake new and time consuming medical service programs, the educational program may well acquire only what is left over in terms of effort and manpower. Perhaps after 20 years of preoccupation with research and additional years of major effort in the field of medical service, we will ultimately consider, with appropriate care and concern, our students and their education. One can only hope that major funding for research and for patient services may be followed, hopefully soon, by major funding and administrative support for medical education as it relates to the needs of medical students and house staff.

Dr. Smith, University of South Florida, Tampa 33620.

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When "Pot" was a vessel for cooking things in,
And "Hooked" was what grandmother's rug may have been?

When "Fix" was a verb that meant mend or repair,
And "Be In" meant simply existing somewhere?

When "Neat" meant well-organized, tidy, and clean,
And "Grass" was a ground cover, normally green?

When "Groovy" meant furrowed with channels and hollows,
And "Birds" were winged creatures like robins and swallows?

When "Fuzz" was a substance, real fluffy, like lint,
And "Bread" came from bakeries, not from the mint?

When "Roll" meant bun, and a "Rock" was a stone,
And "Hang Up" was something you did on the phone?

When "Chicken" meant poultry, and "Bag" meant a sack,
And "Junk" was trash cast-outs and old bric-a-brac?

When "Swinger" was someone who swings in a swing,
And a "Pad" was a sort of cushiony thing?

When "Tough" described meat too unyielding to chew,
And "making a scene" was a rude thing to do?

And words, once so sensible, sober, and serious,
Were not making "Freak Scene" like "psycodeliricous?"

It's Groovy, man, Groovy, but English it's not,
Methinks that the language has gone straight to pot!

Reprinted from The Picomeso Mail Bag of Pinellas County Medical Society, February 1971.

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actinic, solar or senile keratoses, regard it as "precancerous."[1,2]

a uorouracil, considered by some dermatologists to be a major n in the treatment of multiple solar keratoses,[3,4] offers the physi- a latively inexpensive alternative to cryosurgery, electrodesic- n id cold knife surgery. Of the topical fluorouracils available, only e offers 2% and 5% solution and 5% cream formulations—formula- t.t have proved effective in the treatment of these mutliple lesions.

duration of therapy, 2 to 4 weeks.

e showed that with the 2% and 5% Efudex preparations, the usual ti of therapy was only 2 to 4 weeks.[5] Other studies with topical o acil revealed that when concentrations of less than 2% were ; nificant numbers of lesions recurred.[6]

s the lesions you can't see, too.

e us lesions, not apparent prior to 2% and 5% Efudex therapy, i ted themselves by definite reactions, while intervening skin a d relatively unaffected.[5] The early eradication of these subclini- e ns (which may otherwise have undergone further progression) a y accounts for the reduced incidence of future solar keratoses in e s treated with topical fluorouracil—especially with 5% e rations.[6]

o identify solar keratoses.

i ly, the lesion—a flat or slightly elevated brown to red-brown u —is dry, rough, adherent and sharply defined. Multiple lesions t rule.

ctable therapeutic response.

s ponse to a typical course of Efudex therapy is usually r eristic and predictable. After 3 or 4 days of treatment, erythema i to appear in the area of keratoses. This is followed by a moderate r se inflammatory response, scaling and occasionally moderate d ness or pain. The height of this response generally occurs two k after the start of therapy and then begins to subside as treatment t ed. Within two weeks of discontinuing medication, the a nation is usually gone. Lesions that do not respond should b sied.

r es: 1. Allen, A. C.: *The Skin, A Clinicopathological Treatise*, ed. 2, New York, n Stratton, 1967, p. 842. 2. Dillaha, C. J.; Jansen, G. T, and Honeycutt, W. M.: e ent of Actinic Keratoses with Topical Fluorouracil," in Waisman, M. (ed.): r ceutical Therapeutics in Dermatology, Springfield, Ill., Charles C Thomas, 1968, 2 Belisario, J. C.: *Cutis*, *6*:293, 1970. 4. Sams, W. M.: *Arch. Derm.*, *97*:14, 1968. a n file, Hoffmann-La Roche Inc., Nutley, New Jersey. 6. Williams, A. C., and a .: *Cancer*, *25*:450, 1970.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

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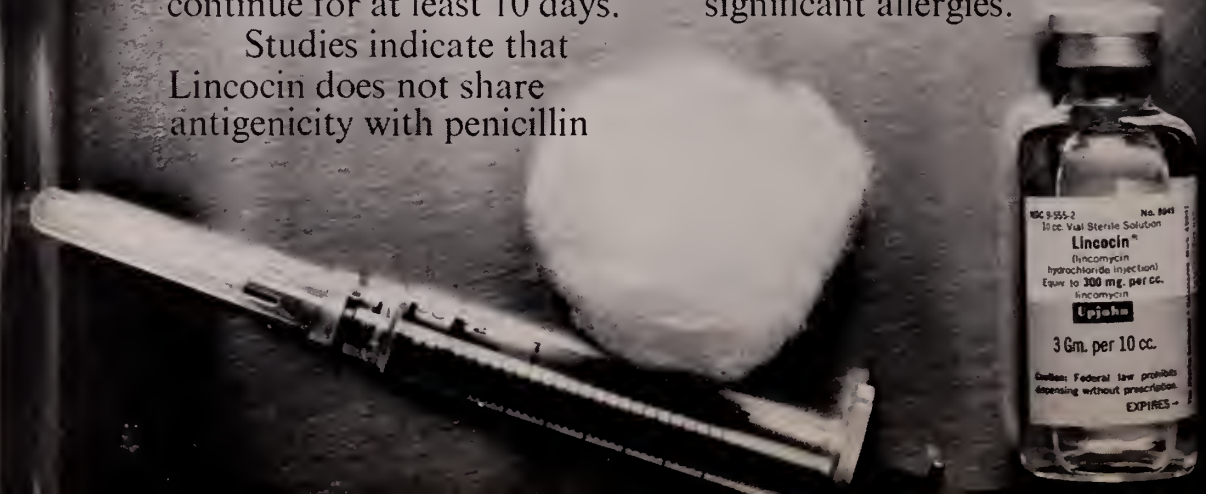
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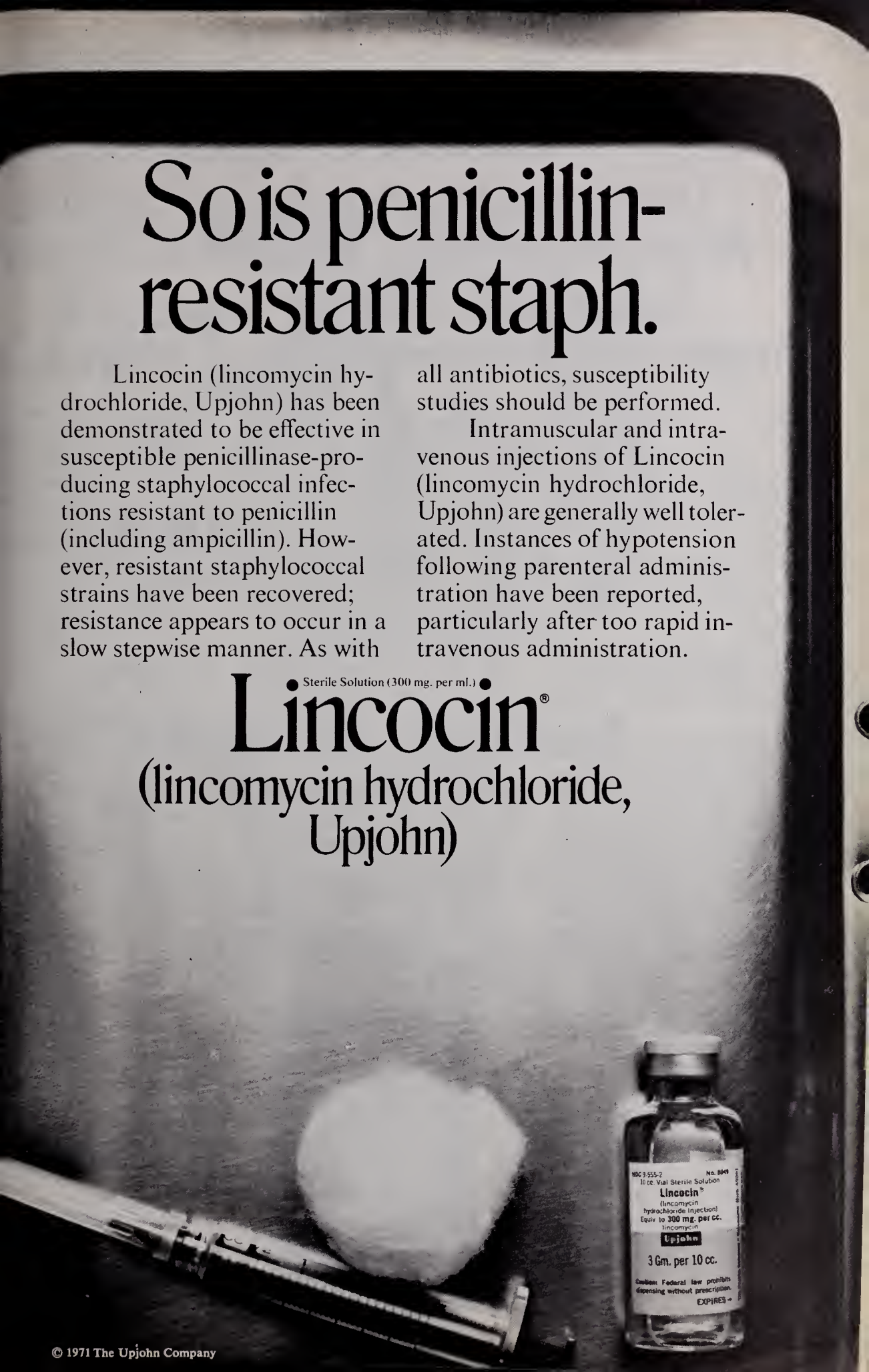
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Intramuscular and intravenous injections of Lincocin (lincomycin hydrochloride, Upjohn) are generally well tolerated. Instances of hypotension following parenteral administration have been reported, particularly after too rapid intravenous administration.

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500 mg. Capsule	500 mg.
*Sterile Solution per 1 ml.	300 mg.
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An antibiotic chemically distinct from others available, indicated in infections due to susceptible strains of staphylococci, pneumococci, and streptococci. *In vitro* susceptibility studies should be performed.

CONTRAINDICATIONS: History of prior hypersensitivity to Lincocin (lincomycin hydrochloride). Not indicated in the treatment of viral or minor bacterial infections.

WARNINGS: Cases of severe and persistent diarrhea have been reported and at times drug discontinuance has been necessary. This diarrhea has been occasionally associated with blood and mucus and at times has resulted in acute colitis. This reaction usually has been associated with oral therapy, but occasionally has been reported following parenteral therapy. Although cross sensitivity to other antibiotics has not been demonstrated, make careful inquiry concerning previous allergies or sensitivities to drugs. Safety for use in pregnancy has not been established and Lincocin is not indicated in the newborn. Reduce dose 25 to 30% in patients with severe impairment of renal function.

PRECAUTIONS: Like any drug, Lincocin should be used with caution in patients having a history of asthma or significant allergies. Overgrowth of nonsusceptible organisms, particularly yeasts, may occur and require appropriate measures. Patients with pre-existing monilial infections requiring Lincocin therapy should be given concomitant antimonilial treatment. During prolonged Lincocin therapy, periodic liver function studies and blood counts should be performed. Not recommended (inadequate data) in patients with pre-existing liver disease unless special clinical circumstances indicate. Continue treatment of β-hemolytic streptococci infection for ten days to diminish likelihood of rheumatic fever or glomerulonephritis.

ADVERSE REACTIONS: *Gastrointestinal*—Glossitis, stomatitis, nausea, vomiting. Persistent diarrhea, enterocolitis, and pruritus ani. *Hemopoietic*—Neutropenia, leukopenia, agranulocytosis, and thrombocytopenic purpura have been reported. *Hypersensitivity reactions*—Hypersensitivity reactions such as angioneurotic edema, serum sickness, and anaphylaxis have been reported, sometimes in patients sensitive to penicillin. If allergic reaction occurs, discontinue drug. Have epinephrine, corticosteroids, and antihistamines available for emergency treatment. *Skin and mucous membranes*—Skin rashes, urticaria, vaginitis, and rare instances of exfoliative and vesiculobullous dermatitis have been reported. *Liver*—Although no direct relationship to liver dysfunction is established, jaundice and abnormal liver function tests (particularly serum transaminase) have been observed in a few instances.



Cardiovascular—Instances of hypo sion following parenteral admi stra have been reported, particularl after rapid I.V. administration. Rar stan of cardiopulmonary arrest hav been ported after too rapid I.V. admi stra If 4.0 grams or more adminis ed dilute in 500 ml. of fluid and mini no faster than 100 ml. per ho . *Lo reactions*—Excellent local toler ce d onstrated to intramuscularly adm iste Lincocin. Reports of pain foll ing jection have been infrequent. ntra nous administration of Lincoc in to 500 ml. of 5% glucose in lis water or normal saline has pro ced local irritation or phlebitis.

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Book Reviews

Infection Control in the Hospital, by the American Hospital Association. Pp. 154. Price $4.00. Chicago, Illinois, 1970.

This book is the product of the AHA Committee on Infections within hospitals and it is designed to "provide in one place, all of the things hospital workers must know in order to be maximally effective in the control of nosocomial infection."

There is much good to be said about this manual. It is relatively brief, fairly intelligible and reasonably complete although superficial on the subject of intrahospital epidemiology.

On the other hand it is poorly organized, somewhat impractical for hospitals with no academic affiliation and suffers from lack of explicit directions. As one who has served on committees in hospitals, I realize that most committee chairmen will not read this book nor synthesize the contained information although it is only 147 pages long. It should be apparent to the AHA that to ask a private medical practitioner to do so on a voluntary basis is rather expensive in terms of the cost-benefit ratio for the physician himself and that very few hospitals will be willing to pay him to do so because of inability to subsidize non-revenue producing functions.

This book is a missed opportunity to describe explicitly the minimal, moderate and best programs in current hospital epidemiology. Model rules, procedures and committee structures should be easy to reduce to written form, why should every hospital have to excerpt this book in order to accomplish the work? It would be much simpler to provide choices and have the various hospital committees pick and choose among them.

Another unfortunate aspect is that this publication will undoubtedly achieve quasi legal standing by embodiment into case law by virtue of issue by the AHA. This is likely to be unfavorable for hospitals. For example, few hospitals of small or moderate size will be able to afford a quarter or half-time infection control nurse or a hospital epidemiologist as is suggested. Also it is discouraging to have mention of screening food service employees for amebiasis but to have no mention of screening for Australia Antigen which might well be more productive.

In spite of these and other shortcomings, this book is substantially better than any of several of the comparable governmental manuals for hospital use.

Edward N. Willey, M.D.
St. Petersburg

Wine and the Digestive System by Salvatore Pablo Lucia, M.D. Pp. 157. Price $3.50. (No illustrations) San Francisco, Fortune House, 1970.

The book is a bit of puffery by the Director of Medical Research for the Wine Advisory Board, an agency of the California State Board of Agriculture, and Coordinator of The National Study on the Importance of Wine. The book's stated purpose is "to acquaint the physician with the literature on a socio-cultural substance in continuance use since the earliest recorded history; to guide the interested reader through an important facet of medical lore as well as to illustrate the medicinal use of wine preceded by millenia the scientific proof of its value; to permit an objective evaluation of the role as nutrient and medicine; and finally, to supply the scientific evidence essential to move those whose bias rules their thinking."

It is interesting to note that the bibliographic reviews on contraindications to use of wine and alcohol are given comparatively little space in comparison to the literature emphasizing the uses and benefits.

The author fails, in the opinion of the reviewer, to give an objective evaluation of his subject. The book is not recommended.

F. Norman Vickers, M.D.
Pensacola

Biological Rhythms in Psychiatry and Medicine by Gay Gaer Luce. Pp. 183. Price $1.75. Washington, D.C., U.S. Government Printing Office, 1970.

This publication by the National Institute of Health is written for the Program Analysis and Evaluation Branch, and the Office of Program Planning and Evaluation.

From the moment of conception until death, rhythm is a vital part of our structure. We are dimly aware that we fluctuate in mood, energy, performance, and well-being each day, and furthermore there are more subtle and longer behavioral alterations each week, month, season and year. Through the studies of such rhythms, various aspects of human variations in symptoms of disease, response to medical therapy, in ability to learn, and performance on the job are being better understood. Already our mood changes and vulnerability to illness and stress are being foreseen. By the end of this decade, many unclear problems in medicine may be clarified by the knowledge of biological rhythms. Timing may become the most important factor in prophylaxis and medical care, for it has been learned that the effects of drugs vary with the time of administration. In addition it has been learned that x-ray therapy, surgical operations, and even psychotherapy have an impact on the individual, depending upon his particular biological cycling.

Knowledge gained from the studies of such periodicities will be important in scheduling work performance, avoiding accidents, and preventing absenteeism. All aspects of medicine will become integrated with biological rhythmic activity, from drug testing in animals and humans to patient administration.

This book is well written and contains a very large bibliography. It is apparent that a great deal of work is being done on periodic rhythms in animals and humans. The National Institute of Mental Health is supporting researchers in this new field, thereby taking the initiative in an area which is still not widely acknowledged, hoping its action will attract the attention of more scientists to this exciting and promising area.

Perry A. Sperber, M.D.
Daytona Beach

Receipt of the following books is acknowledged. While time and space will not permit review of all books received, medical readers interested in reviewing particular books are invited to address requests to the Editor. Following acceptance of a written review for publication, a reviewer may then retain the book reviewed for his personal or favorite library.—Ed.

The Adolescent Patient by William A. Daniel Jr., M.D. Pp. 444. 76 illustrations. Price $20.50. St. Louis, The C. V. Mosby Company, 1970.

Spectroscopic Approaches to Biomolecular Conformation edited by D. W. Urry. Pp. 314. Illustrated. Price $15.00. Chicago, American Medical Association, 1970.

Urological Surgery. 4th Ed. by Austin Ingram Dodson Jr., M.D. Pp. 617. Price $32.50. 694 illustrations. St. Louis, The C. V. Mosby Company, 1970.

Brands, Generics, Prices and Quality by PMA. Pp. 118. Price $1.00. Washington, D. C., Pharmaceutical Manufacturers Association, 1971.

Fifth Conference on War Surgery, Tokyo, Japan, March 29-April 2, 1971. Pp. 73. Copies available from CINCPAC, Attn: Surgeon, FPO San Francisco, California 96610.

Development and Legal Regulation of Coercive Behavior Modification Techniques With Offenders by Ralph K. Schwitzgebel, Ed.D., J.D., Harvard University. Pp. 90. Price 45 cents. Public Health Service Publication 2067, U.S. Government Printing Office, Washington, D.C. 20402.

Medical Parasitology by J. Walter Beck, B.S., M.S., Ph.D. and Elizabeth Barrett-Connor, B.A., M.D., D.C.M.T. (London). Pp. 210. Price $10.75. 150 illustrations. St. Louis, The C. V. Mosby Company, 1971.

Think Thin by Thomas M. Quehl, M.D. Pp. 95. Illustrated. Price $4.95. New York, Vantage Press, Inc., 1971.

Handbook of Obstetrics and Gynecology by Ralph C. Benson, M.D. Illustrated by Laurel V. Schaubert. Pp. 774. Price $6.50. Los Altos, Lange Medical Publications, 1971.

ORGANIZATION

Committee on Drug Abuse

If legislation is enacted to regulate the distribution of drug samples, physicians should not acce certain types of samples, a committee of the Florida Medical Association recommends.

Meeting in Orlando on April 21, the FMA ad hoc Committee on Drug Abuse took note House Bill 593, which provides for the safekeeping of certain drugs by pharmacies, wholesaler physicians and others.

The Committee adopted a motion that if this bill clears the Legislature and becomes law, do tors should be asked to refuse samples of central nervous system stimulants, barbiturates and hallu cinogens. The motion asked that the drug houses use the funds spent on such samples as donations fo youth welfare activities.

In other motions, the Committee:

—Supported proposals for the sale of hypodermic syringes by prescription only.

—Adopted the Subcommittee on Education's proposed guidelines for teachers in dealing wit drug problems in the schools.

—Called for increased funding and emphasis on prevention and education in federal and stat drug abuse programs.

—Asked the President of FMA to seek the appointment of a member of Gov. Reubin Askew' staff as a consultant to the Committee.



Board of Governors member, Dr. James F. Cooney and Woman's Auxiliary president, Mrs. Arnold J. Spanjers, pose April 30 in West Palm Beach with 1971 FMA State Science and Engineering Fair Award winners David S. Richmond, Lake Worth; Sue L. Williams, Fort Myers; Benjamin Mondschein, Miami Beach; Robert J. Entel, Dunedin; Gerald L. Storch, Jacksonville, and Susan Rebecca Little, Melbourne. Miss Williams, an 11th grader at Cypress Lake Senior High School, won the Association's first place senior $1,000 medical scholarship and a $100 savings bond for her project titled "Waste Effluent Sterilization: Sewers Vs. Septic Tanks."

The large amount of marijuana smoking (12 million to 20 million people) in this country was reviewed, as well as some of the literature concerning adverse effects. Thirty-eight individuals from age 13 to 24 years, all of whom smoked marijuana two or more times weekly, were seen by us between 1965 and 1970, and all showed adverse psychological effects. Some also showed neurologic signs and symptoms. Of the 20 male and 18 female individuals seen, there were eight with psychoses; four of these attempted suicide. Included in these cases are 13 unmarried female patients who became sexually promiscuous while using marijuana; seven of these became pregnant.

Reprinted from "Effects of Marijuana on Adolescents and Young Adults" by Harold Kolansky, M.D. and William T. Moore, M.D., published in April 19, 1971 issue of J.A.M.A.

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General News

New President of Southeastern Surgical Congress

Dr. Wilbur G. Sumner of Jacksonville has been installed as president of the Southeastern Su gical Congress, succeeding Dr. William H. Moretz of Augusta, Ga., during the organization's mee ing recently at Miami Beach. The new president is a past president of the Duval County Medic Society and is a diplomate of the American Board of Surgery. The Southeastern Congress includ surgeons from 11 states, Puerto Rico and the District of Columbia.

American College of Preventive Medicine

The American College of Preventive Medicine and the Association of Teachers of Preventiv Medicine will sponsor a joint scientific session in Minneapolis on October 10.

One highlight of the meeting will be the 15th Annual ACPM Lectureship. Dr. H. Bruce Dul Assistant Director of the Center for Disease Control in Atlanta, Ga., will speak on "The Law an Medicine: Allies or Adversaries?"

Groundbreaking at J. Hillis Miller Health Center

May 22 was the scheduled groundbreaking date for the $37.7 million expansion of the J. Hilli Miller Health Center in Gainesville.

The new facilities will include an eleven story dental college which is expected to educate 23 dentists a year by 1975. Twenty dental students will be admitted in temporary quarters next fall

Dignitaries who were scheduled to take part in the May 22 ceremony included: Presiden Stephen C. O'Connell of the University of Florida; Gov. Reubin Askew; Vice Chairman Louis C Murray of the Board of Regents; Commissioner of Education, Floyd T. Christian, Health Cente Provost Edmund F. Ackell, and Floyd K. Hurt, M.D., President of the Florida Medical Association.

May be Poisonous to Children

Products containing hexachlorophene and intended for oral use should be kept away from children, the American Academy of Pediatrics warns. Such preparations may be poisonous to children, according to the Academy's Committee on Environmental Hazards. Hexachlorophene is sometimes used in toothpastes and throat lozenges.

The Committee said that in substantial dosage hexachlorophene is poisonous in rats. It was attributed as the cause of death of an infant who consumed a few ounces of a three per cent solution. Parents are advised to not allow their children to use such products.

Applications for Investigatorships

The American Heart Association is now accepting applications for support from investigators during the year beginning July 1, 1972.

Applications will be received until September 15 for Established Investigatorships, Foreign Visiting Scientist Awards and British-American Research Fellowships. The cutoff for the grants-in-aid category will be November 1.

Established Investigatorships are five-year awards to scientists under the age of 40. Stipends begin at $13,000, increasing by $1,000 per year.

Foreign Visiting Scientist Awards are for periods of three to 12 months. These enable American investigators to invite foreign scientists to the U.S. for collaboration. Stipends are negotiable.

British-American Research Fellowships are one-year training awards to U.S. citizens. The grants include stipends of $9,000 plus allowances for dependants and travel.

Application forms may be obtained by contacting: Director of Research, American Heart Association, 44 East 23rd St., New York, N. Y. 10010.

Color Slides on Cardiopulmonary Resuscitation

A color slide presentation on cardiopulmonary resuscitation is available through the Florida Heart Association.

The set contains 36 slides and a discussion guide at a price of $4.40 per set. The program illustrates the definitive therapy regimen from the determination to continue cardiopulmonary resuscitation to postresuscitation care. Recommendations are given for drugs and fluids and combatting asystole, ventricular fibrillation and profound cardiovascular collapse.

Persons interested in obtaining a slide set should order "EM 377 Rev." from the Florida Heart Association, P. O. Box 10100, St. Petersburg, Fla. 33733.

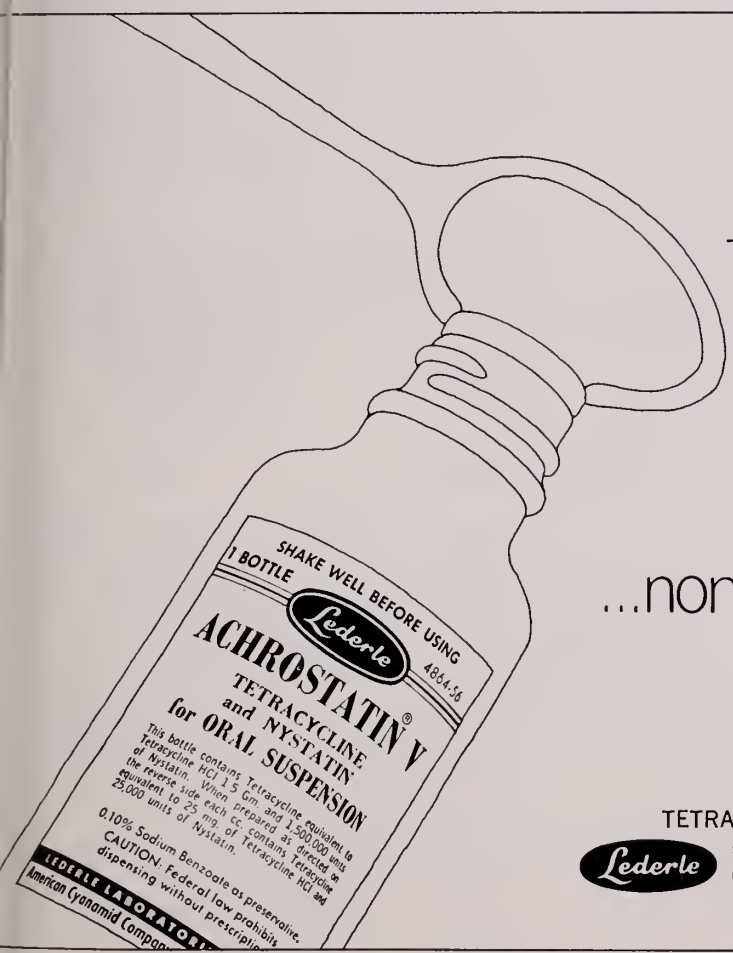
American College of Surgeons Annual Clinical Congress

The 57th Annual Clinical Congress of the American College of Surgeons will be held in Atlantic City, N.J., October 18-22.

The Congress, the world's largest gathering of surgeons, is expected to attract about 13,000 doctors and others from all corners of the earth.

Scientific features will include 17 postgraduate courses, more than 250 research reports, 46 panel discussions and symposia in general surgery and the surgical specialties, telecasts from Jefferson Medical College, approximately 350 scientific and industrial exhibits, and more than 90 scientific films.

Additional information may be obtained by contacting Mr. T. E. McGinnis, American College of Surgeons, 55 East Erie Street, Chicago, Ill. 60611.



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MEETINGS

Approved by FMA Committee on Postgraduate Education

AUGUST

19-21 Postgraduate Obstetric-Pediatric Seminar, Diplomat Hotel, Hollywood. For information: A. F. Caraway, M.D., Div. of Health, P.O. Box 210, Jacksonville 32201.

23-28 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

SEPTEMBER

20-25 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

NOVEMBER

19-20 Tenth Annual Physicians' Seminar on Respiratory Diseases and Workshop for Allied Health, Perdido Bay Inn & Golf Club, Pensacola. For information: Jay D. Williams Jr., M.D., Box 8127, Jacksonville 32211.

29-Dec. 4 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

Florida State Board of Medical Examiners:

July 25-27, 1971, Miami Beach

January 16-18, 1972, Tampa

For information: Mrs. Marjoriann Keebler, Assistant Director, Florida State Board of Medical Examiners, 2717 E. Oakland Pk. Blvd., Fort Lauderdale, Fla. 33306.

National and Regional Meetings Held in Florida

AUGUST

26-29 United Ostomy Association, Diplomat Hotel, Miami Beach. Exec. Dir.: Donald P. Binder, 1111 Wilshire Blvd., Los Angeles 90017.

30-Sept. 2 Western Hemisphere Nutrition Congress, Americana Hotel, Miami Beach. Info.: AMA Council on Foods and Nutrition, 353 N. Dearborn St., Chicago 60610.

OCTOBER

4- 7 American Academy of Family Physicians, Miami Beach. Exec. Dir.: Mr. Mac F. Cahal, JD, Volker Blvd. at Brookside, Kansas City, Mo. 64112.

12-16 Congress of Neurological Surgeons, Americana Hotel, Bal Harbour. Sec.: Bernard S. Patrick, M.D., University Medical Center, 2500 N. State St., Jackson, Miss. 39216.

31-Nov. 3 Academy of Psychosomatic Medicine, 18th Annual Meeting, Colony Beach Club, Sarasota. Exec. Dir.: Adam J. Krakowski, M.D., 202A Cornelia St., Plattsburgh, New York 12901.

NOVEMBER

1- 4 Southern Medical Association, Miami Beach. Exec. Dir.: Mr. Robert F. Butts, 2601 Highland Ave., Birmingham, Ala. 35205.

2 George Papanicolaou Memorial Seminar in Gynecologic Pathology, Fontainebleau Hotel, Miami Beach. Dir.: George Ioannides, M.D., 1830 S.W. 99th Ave., Miami 33165.

4- 6 Southern Thoracic Surgical Association, Tampa. Sec.-Treas.: James W. Brooks, M.D., 1200 E. Broad St., Richmond, Va. 23219.

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Woman's Auxiliary



Adieu to Aquarius

The 'Age of Aquarius' has faded away, but hopefully it has left a small mark in the annals of the Florida Medical Association and its Auxiliary. Cooperation between all forces was never more evident; state and county, medical society and auxiliary, people and people.

The life of the organization, membership, increased. Two new auxiliaries organized and a Woman's Auxiliary to the Student American Medical Association—WA-SAMA chapter was born. The latter is a spawning ground for new members and we are delighted to have our first chapter in the state. All this was effected by careful groundwork laid by previous administrations.

The largest contribution, $1,142.90 was made to International Health Activities from profits of the Fall Conference Bazaar. Blood Banks were established throughout the state and Community Health projects furthered in the names of our doctor husbands.

GEMS (Good Emergency Mother Substitutes) courses were taught to prospective baby-sitters (teenagers through grandmothers), Block Mother programs were initiated, and Defensive Driving courses promoted.

Ninety-six high school Health Careers Clubs took many women-power hours, but over 3,000 students learned about allied health professions. Our greatest energies and funds were budgeted for Health Careers, for we want you doctors to have the finest help available.

To date, the Auxiliary has contributed over $16,000 to AMA-ERF and many Auxiliary scholarships were given to deserving students on state and county levels.

Our Day in the Legislature drew members from all over the state. We personally met with our Representatives and Senators in Tallahassee and contacts were also made with our legislators in Washington. New enthusiasm was generated for FLAMPAC by the appearance of Senator Barry Goldwater at the annual Auxiliary-FLAMPAC luncheon in Bal Harbour. If you missed hearing him, you missed one great American.

An Auxiliary account for destitute physicians and their families was opened within your Florida Medical Foundation. Proceeds from the Annual Meeting Boutique, and the sale of seafood and citrus fruit have been placed in this fund. A Medical Seminar Tour to the Orient is planned for August and the Foundation will be the recipient of profits derived.

Fifty-four entries in the Fifth Annual Benefit Art Show at the Americana, netted $525. These monies will be used to purchase a diorama on the second floor of the St. Augustine Medical Museum.

Our number one priority project this year was drug abuse education. All twenty-six component



Woman's Auxiliary House of Delegates. (Left to right) Mrs. Linus W. Hewit, national representative to the Woman's Auxiliary to the AMA; Mrs. Edward Ludwig, Parliamentarian; Mrs. Arnold J. Spanjers, President, presiding; Mrs. Wesley S. Nock, President-Elect, and Mrs. Benjamin Moore, Recording Secretary.

auxiliaries were involved in some manner. Most counties presented drug abuse programs to the public, to the schools and to themselves, for we believe that education begins at home. The state Auxiliary was involved with the Florida Department of Education in their drug training program for teachers. Acting as a resource contact, the Auxiliary participated on state, regional, county, and local levels. Educational materials were distributed, physician speakers recruited, and volunteer help provided whenever and wherever necessary.

The foregoing is just a small sampling of what was done by your 3,000 outstanding wives in Florida. To enumerate all their activities would fill volumes. One thing is certain—we think you finally know that we're ALIVE, and that we have and can do many things for you.

For, dear and glorious physicians, we take great PRIDE in your profession. We think it a PRIVILEGE to be married to you. We have great Auxiliary PROGRAMS for better Community Health, so let's PROGRESS together for a better image of American medicine. Pride, privilege, programs, progress all begin with the letters "p" and "r". And that's what we're all about—your best Public Relations, freely given and given with much 'luv.'

So now, adieu. It has been a good year for the Auxiliary; hopefully, it has been the same for you. You'll not hear from us until September and then it will be under a new penname, Mrs. Wesley S. Nock (Barbara), of Miami. Do look for her, for no one loves this group more than she does. The Auxiliary will flourish under her leadership and believe me, *your* wishes will be her command.

Gentlemen, our gratitude for the many courtesies extended us this year is sent to you along with our best wishes for a safe and happy summer.

Bennie Spanjers (Mrs. Arnold J.)
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Sometimes it is said that man cannot be trusted with the government of himself. Can he then be trusted with the government of others?

—Thomas Jefferson (1743-1826)

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Bay	Dixon R. McCloy, Panama City	John F. Mason Jr., Panama City	1st Tues.	—	42
Brevard	N. Frank Fain Jr., Melbourne	Robert C. Seelman, Melbourne	2nd Tues.	15	154
Broward	Milton P. Caster, Ft. Lauderdale	Raymond Parks, Ft. Lauderdale	4th Tues.	105	576
Charlotte	Fred P. Nisi, Port Charlotte	Stephen R. Roddy, Punta Gorda	2nd Tues.	2	20
Clay	W. Raleigh Thompson, Orange Park	E. Charlton Prather, Orange Park	4th Tues.	2	15
Collier	John S. Stewart, Naples	Ralph E. Peterson, Naples	3rd Wed.	1	54
Columbia	D. D. Weiffenbach, Lake City	Joseph I. Benefield, Lake City	3rd Wed.	2	16
Dade	Vincent P. Corso, Miami	Victor D. Dembrow, Miami	1st Tues.	336	1,744
Desoto-Hardee-Glades	Ernest P. Palmer, Wauchula	Alex F. Amadio, Bowling Green	1st Tues.	3	17
Duval	Thad Moseley, Jacksonville	Leslie R. Adams, Jacksonville	1st Tues.	52	472
Escambia	Philip B. Phillips, Pensacola	F. Norman Vickers, Pensacola	2nd Tues.	20	140
Franklin-Gulf	John W. Hendrix, Port St. Joe	W. T. Weathington, Apalachicola	Last Wed.	1	4
Highlands	Robert T. Rengarts, Sebring	A. Hunter Foster, Sebring	3rd Mon.	3	25
Hillsborough	Richard G. Connar, Tampa	Eugene J. Cornett, Tampa	1st Tues.	76	385
Indian River	John P. Gifford, Vero Beach	James G. Punches, Vero Beach	2nd Tues.	5	35
Lake	William H. Shutze, Leesburg	Bergon F. Brokaw, Leesburg	1st Wed.	—	50
Lee-Hendry	J. Frank Rawl, Ft. Myers	John T. Butler, Ft. Myers	3rd Mon.	13	94
Leon-Wakulla-Jefferson	Luther L. Pararo Jr., Tallahassee	J. W. MacDonald Jr., Tallahassee	1st Mon.	20	104
Madison	W. Johnson Bibb, Madison	Julian M. DuRant, Madison	1st Tues.	—	5
Manatee	Frederick K. Allen, Bradenton	Richard F. Wynkoop, Bradenton	2nd Tues.	3	84
Marion	S. A. Moses Shashy, Ocala	Keith H. Knorr, Ocala	3rd Tues.	11	51
**Levy*					
Monroe	Joseph L. Lester, Key West	Robert E. Lazarus, Key West	1st Thurs.	1	39
Nassau	Cecil B. Brewton, Fernandina Beach	Harry Shapiro, Jacksonville	2nd Thurs.	3	14
**Baker*					
Okaloosa	Howard A. Parker, Shalimar	Ted D. Laughlin, Ft. Walton Beach	1st Wed.	1	35
Orange	Paul C. Harding, Orlando	Fred E. Medlock Jr., Orlando	3rd Wed.	99	388
**Osceola*					
Palm Beach	Jerry F. Cox, W. Palm Beach	Dick L. Van Eldik, W. Palm Beach	4th Mon.	56	352
Panhandle	William F. Brunner, Marianna	Charles S. Herron Jr., Marianna	1st Thurs.	1	30
Pasco-Hernando-Citrus	W. Wardlaw Jones, Dade City	James W. Basinger, Dade City	2nd Thurs.	1	34
**Sumter*					
Pinellas	David S. Hubbell, St. Petersburg	W. Shands McKeithen, St. Petersburg	1st Mon.	108	445
Polk	John W. Glotfelty, Lakeland	J. R. Boulware III, Lakeland	2nd Wed.	7	215
Putnam	Walter W. Weigel, Palatka	Claude M. Knight, Palatka	2nd Tues.	2	13
St. Johns	S. Raymond Cafaro, St. Augustine	Vernon A. Lockwood, St. Augustine	3rd Tues.	—	24
St. Lucie-Okeechobee-Martin	John N. Sims, Ft. Pierce	John B. Sullivan, Ft. Pierce	3rd Thurs.	1	55
Santa Rosa	Elbert W. Sutton, Milton	Claude J. Barnes, Milton	2nd Tues.	—	13
Sarasota	Norman Goldstein, Sarasota	G. W. Letchworth, Sarasota	2nd Tues.	30	144
Seminole	Jerry M. Robinson, Deltona	M. Arthur Nesmith, Sanford	2nd Tues.	1	30
Suwannee-Hamilton-Lafayette	Hugo Sotolongo, Live Oak	Alex Kish, Live Oak	1st Sat.	—	7
Taylor	John H. Parker Jr., Perry	John A. Dyal Jr., Perry	Last Fri.	—	7
**Dixie*					
Volusia	Richard W. Snodgrass, Daytona Beach	Bob Bullwinkel, Daytona Beach	2nd Tues.	7	146
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Walton	Lloyd L. McCormack, DeFuniak Spgs.	Thomas G. Spence, DeFuniak Springs	2nd Tues.		8
			Total	1,064	6,267
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situations wanted

PATHOLOGIST: Board certified in clinical and anatomical pathology, age 39, native U.S., Florida resident, university trained, experienced. Write C-993, P.O. Box 2411, Jacksonville, Florida 32203.

INTERNIST-CARDIOLOGIST: Board eligible, trained in clinical cardiology, Cath., and coronary arteriography, seeks position with group or individual in Florida. Available in July. Write S. DiGiorgi, M.D., 1610 North River Drive, Apt. 106, Miami, Florida 33125.

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anxiety: a time bomb

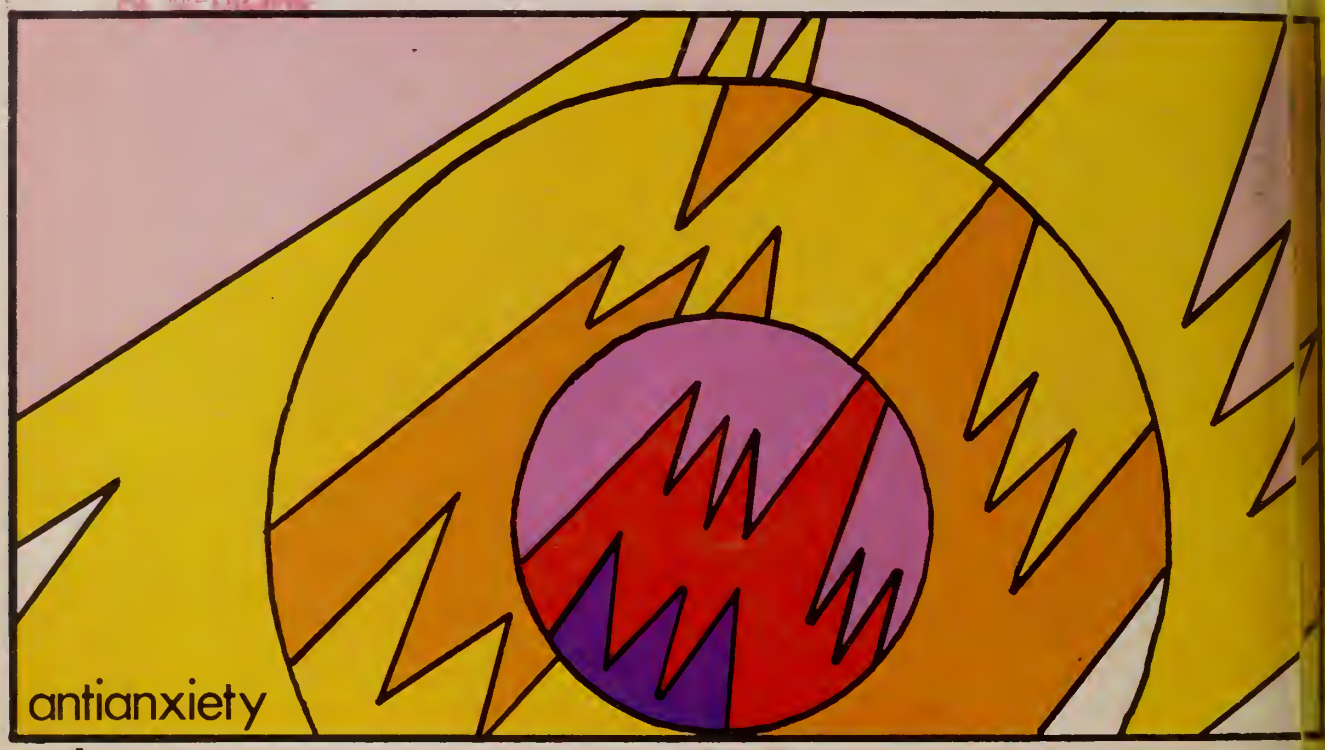
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Indications: Indicated when anxiety, tension and apprehension are significant components of the clinical profile.

Contraindications: Patients with known hy[persensitivity to the drug]

War[nings: Not recommended for use in] possible [suicidal risk] and other [habituation-prone patients] CNS-acting [drugs]. Use with caution in hazardous [occupations requiring complete] mental al[ertness (operating machinery, driving). Though physical and psychological dependence have rarely been reported at recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. [Observe precautions] [re]garding concomitant use of [other CNS depressants (e.g., anticonvulsants)] and in patients receiving [anticoagulants]. Observe usual precautions in impaired renal or hepatic function. Paradoxical reactions such as acute hyperexcitability may occur; discontinue appropriately. Withdrawal symptoms after prolonged high dosage have rarely included tremor, abdominal cramps and vomiting. Observe usual precautions in treating patients with a history of addiction, borderline states or sociopathic personality disorders. Use with caution in pregnancy, during nursing or in women of childbearing potential. Safe use in children under six months of age not established.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by proper dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances, syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, minor menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests advisable during protracted therapy.

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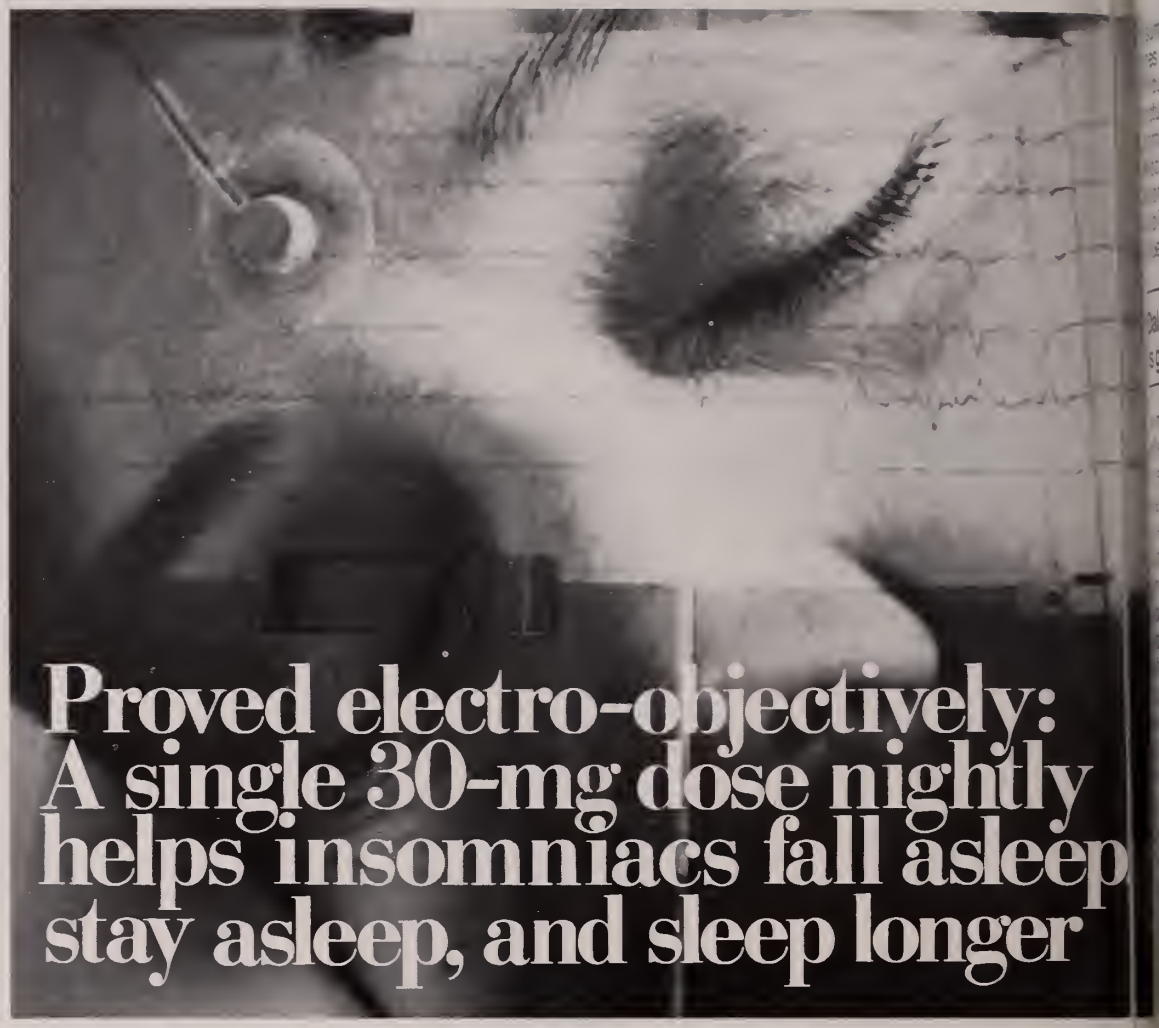
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THE JOURNAL OF THE Florida Medical Association

THE FLORIDA MEDICAL ASSOCIATION, INC. 1874

AUGUST, 1971 • VOLUME 58 • NUMBER 8





Proved electro-objectively: A single 30-mg dose nightly helps insomniacs fall asleep stay asleep, and sleep longer

Controlled studies of 23 insomniac and 13 normal subjects treated with Dalmane (flurazepam HCl) in five sleep laboratories generated over 4000 hours of electroencephalographic, electro-oculographic and electromyographic tracings. These studies revealed that Dalmane 30 mg nightly usually induces sleep in 22 minutes and provides seven to eight hours of sleep.[1,2,3]

Moreover, Dalmane 30 mg was found to be useful in all common types of insomnia in which it was studied. Of drugs studied in a sleep laboratory,[1] Dalmane 30 mg was the only one that consistently reduced sleep induction time and maintained sleep nightly for 14 consecutive nights of use.

Confirmed clinically

Fifty-three controlled studies using paired-night, double-blind crossove design have evaluated Dalmane clinically. In the majority of these, Dalmane (flurazepam HCl) significantly reduced sleep induction time and increased sleep duration. Dalmane and a placebo were alternated on successive nights in 2010 insomniacs, 1706 of whom were studied for a single night-pair, and tl remainder for as many as fifteen paired-nights. A patient preference for Dalmane was apparent in the paired-night studies.

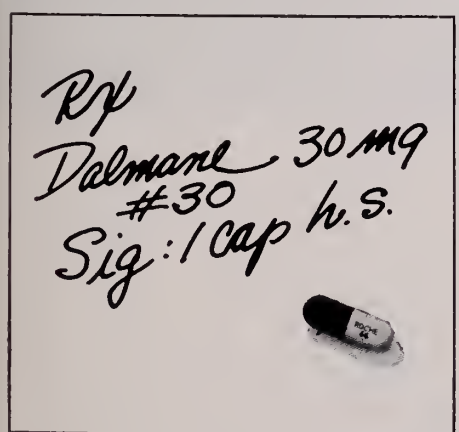
Dalmane was also preferred to certa hypnotics in two separate preferenc studies. In each of two double-blind studies, Dalmane 30 mg retained effectiveness for the total period of seven consecutive treatment nights, according to subjective/objective evaluations.

In summary, Dalmane is useful in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening. It can be used effectively in patients with recurring insomnia or poor sleeping habits, and in acute or chronic medical situations requiring restful sleep.

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In most instances in which adverse effects with Dalmane were reported, they were mild, infrequent and seldom required discontinuation of the drug. Dizziness, drowsiness, lightheadedness and the like were the side effects most frequently noted, particularly in elderly or debilitated patients.[3] Instances of hepatic dysfunction, paradoxical reactions (excitement) and hypotension are rare with Dalmane, and morning hang-over is relatively infrequent. In studies to date the effectiveness of Dalmane for recommended periods of use is maintained without need to increase dosage.

References: 1. Kales, A., *et al.:* "Effectiveness of Sleep Medications: All-Night EEG Studies of Hypnotic Drugs," in Proc. 7th Internat. Cong. Electroencephal. and Clin. Neurophysiol., San Diego, Calif., Sept. 13-19, 1969. **2.** Kales, A., *et al.:* "Psychophysiological and Biochemical Changes Following Use and Withdrawal of Hypnotics," in Kales, A. (ed): *Sleep: Physiology and Pathology,* Phila., Lippincott, 1969, p. 331. **3.** Data on file, Medical Department, Hoffmann-La Roche Inc.



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Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

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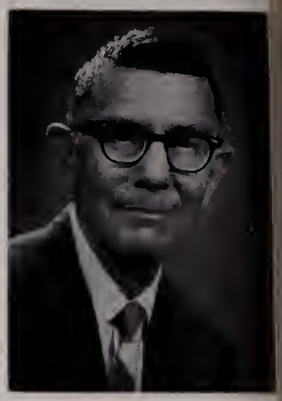
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AUGUST COVER—Yellow fever, the worst plague in Florida's history, was finally eradicated by control of its vector, the Aedes aegypti mosquito. In the pages of this historical issue appears a historical sketch of the yellow jack in Florida, a note of past and present efforts to control the mosquito vector, and a discussion of the world picture of yellow fever with its implications for Florida. We are indebted to Mr. Newton Randum of Miami, a well-known artist, for the cover art.

President's Page



Hospital Board of Trustees Ruling

On May 14, 1971, the attorney general of Florida rendered an opinion which has caused you officers of the Florida Medical Association great concern.

In this opinion, he stated that a physician on the staff of a hospital may not serve as a membe of the hospital board of trustees. His opinion is based on the state Conflict of Interest Law, Part III Chapter 12, Florida Statutes. This apparently applies to all tax-supported institutions in the state He noted that among the activities of the board of trustees is the promulgation of rules and regula tions affecting the medical staff and the granting of staff privileges, and "it seems clear," Genera Shevin wrote, "that the supervisory power held by a board of trustees over a staff physician would create a situation in which the trustees' independence of judgment might well be impaired were he to serve also with the staff physician." To support his judgment, General Shevin also cited the common law rule, "prohibiting a person from holding two incompatible offices or positions of employment in the public service."

In Florida the opinion of the attorney general has the force and effect of law. His opinion is, then, the law, until such time as he or a successor reverses it or a Florida court overrules it. You can well imagine that the effect of this ruling is very much as if a fox had entered a chicken coop; for the last ten to fifteen years the Florida Medical Association has been actively concerned in promoting physicians to serve on hospital boards.

Whether this ruling will apply to only hospitals which receive tax funds for the care of welfare patients, or whether it will apply to any hospital which receives tax funds, such as the Hill-Burton type of law or is tax exempt; is not determined as yet.

It would seem to be strange that under this ruling it would be possible for a physician who is not a member of the hospital staff to serve on the board of trustees. There is also a legal question as to whether a person serving on the board of a hospital, and also as a staff physician on May 12, 1971, the new law's effective date, are "grandfathered," despite the recent ruling of the attorney general; because the present law provides for present members to continue to serve out their terms. However, the attorney general's opinion is based on a state statute which overrides this provision. We will have to obtain legal opinion, or another opinion from the attorney general's office to clarify this matter. I would also like to know if this ruling includes those physicians who are only active members of the staff and would not apply to those with courtesy, honorary or other type of privileges.

The F.M.A.'s attorneys are reviewing General Shevin's opinion in this matter. At our Executive Committee meeting of the Board, held in Atlantic City during the AMA Meeting, it was decided that we would enter into any suit that a physician might bring against this ruling so that it can be tested in the courts and a proper disposition made. Hopefully, we can have it overturned.



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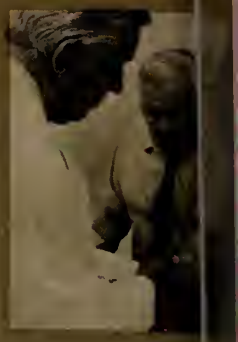
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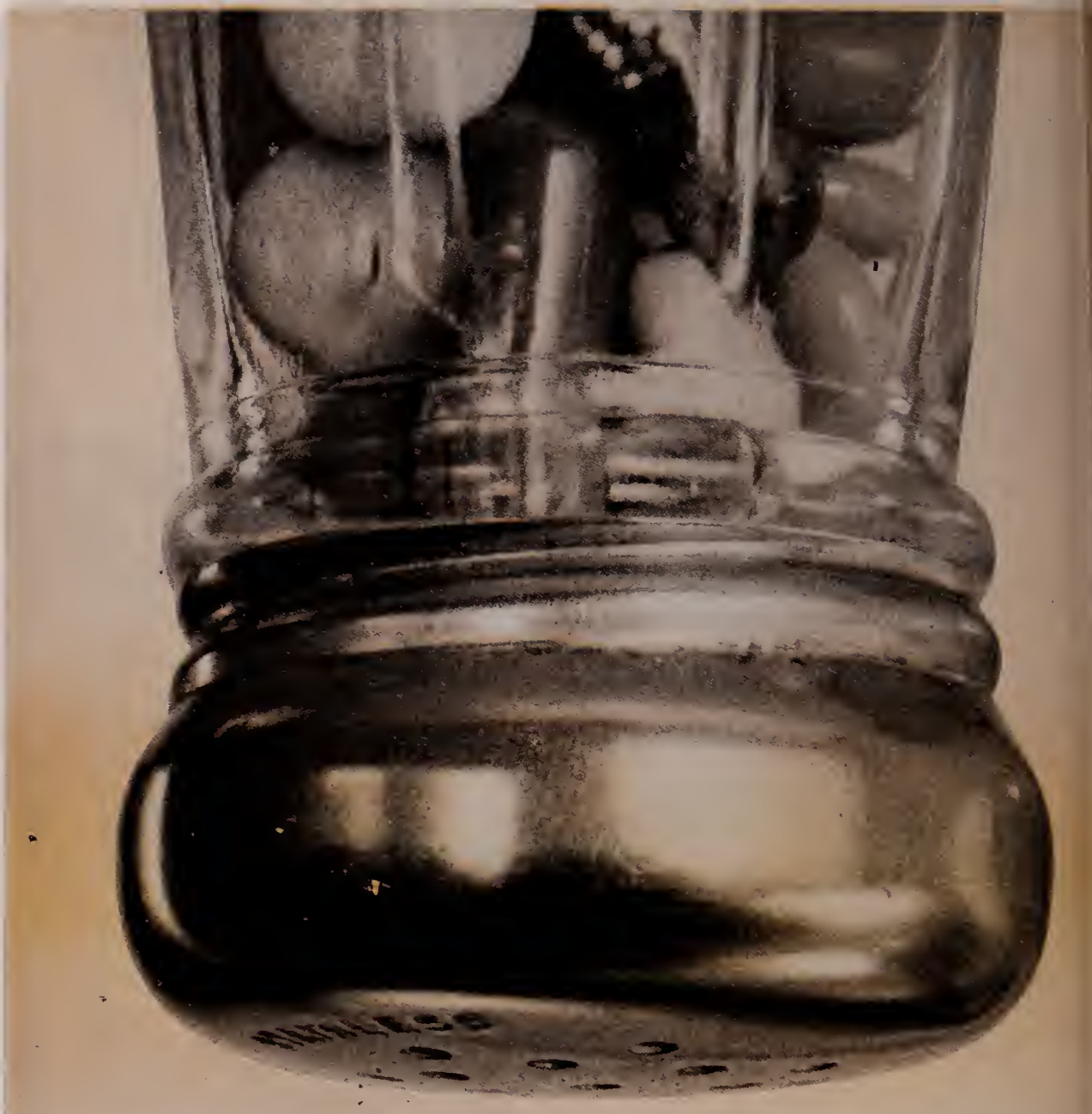
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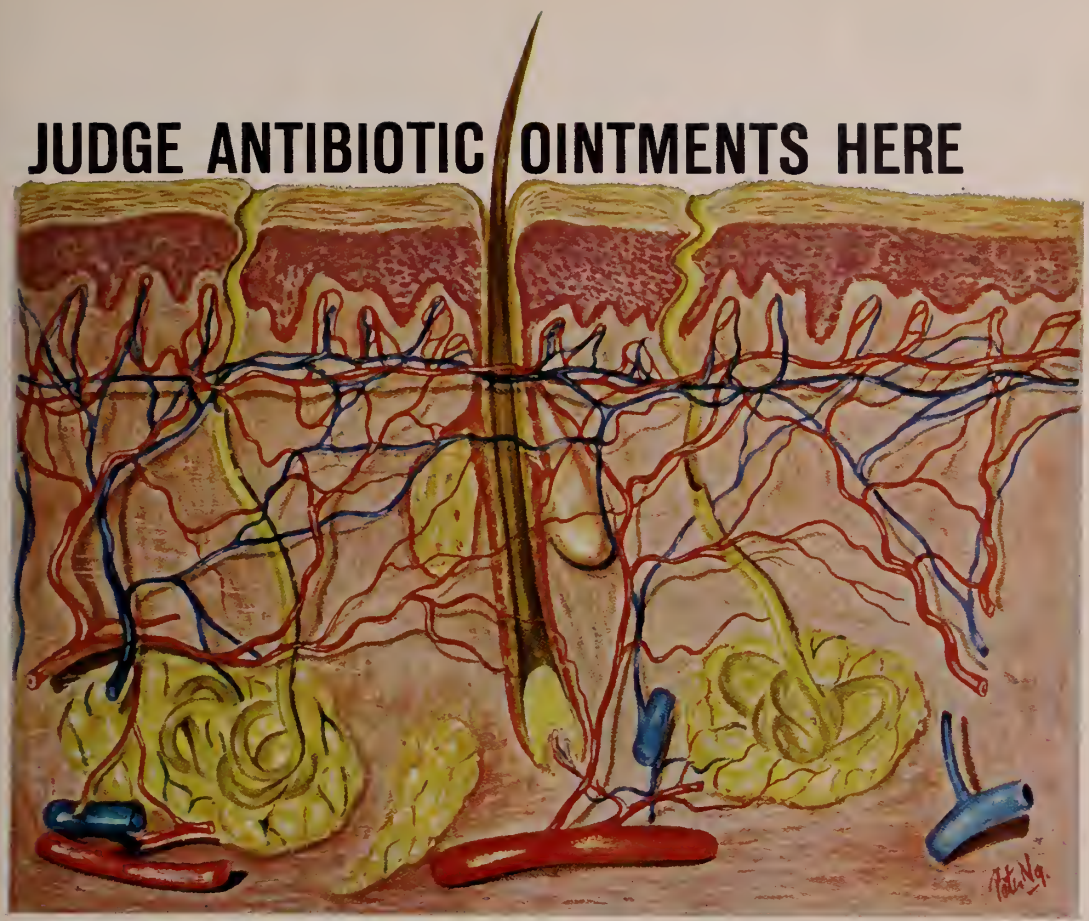
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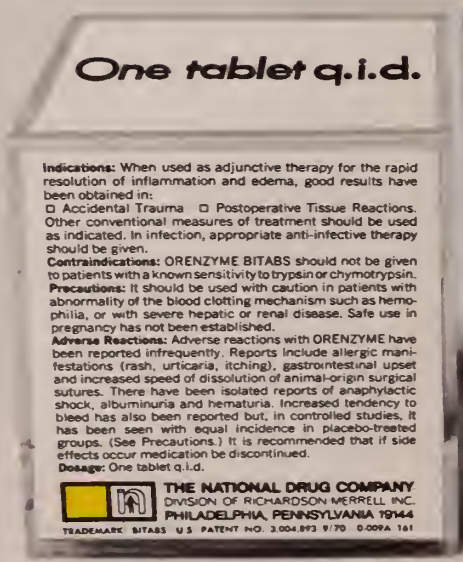
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CEVI-BID avoids the "peak and valley" blood levels usually obtained from t.i.d. dosage of Vitamin C tablets.

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Because bacterial proliferation in the urine is a function of time and retention,[1,2,3] *dawn can be...*

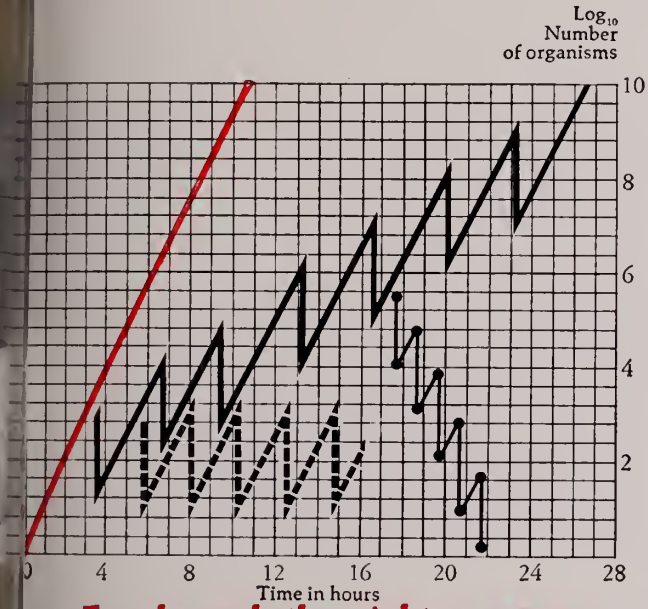
the darkest hour.



oiding frequency and bacterial build-up[1]

raph shows the theoretical effect of various oiding frequencies on bacterial proliferation in he urine.

- maximum growth rate during the overnight period
- voiding every 3½ hours
- voiding every 2½ hours
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For through-the-night coverage

Force fluids. Frequent micturition. It's hard to fault his regimen for dealing effectively with an acute bladder infection. Another fundamental adjunct to treatment is drug therapy for round-the-clock antibacterial coverage. Coverage that may be especially desirable during the night hours of sleep when urinary retention favors bacterial build-up in the bladder. This is the coverage that Gantanol (sulfamethoxazole) *b.i.d.* can provide.

Controls susceptible gram-negative and gram-positive bacteria

Within 2 to 3 hours of the initial 2-Gm adult dose, effective antibacterial levels in blood and urine begin working to control the most common urinary tract invaders. Subsequent 1-Gm *b.i.d.* doses maintain coverage your patient needs to fight *E. coli* and other susceptible gram-negative and gram-positive pathogens.

Your options: tablets or suspension

Prescribe Gantanol Tablets or the pleasant-tasting Suspension. Either dosage form provides your patient with the all-day, all-night coverage she needs to fight off nonobstructed cystitis.

References: 1. O'Grady, F., and Cattell, W. R.: *Brit. J. Urol.*, *38*:156, 1966. 2. Hinman, F., Jr., and Cox, C. E.: *J. Urol.*, *96*:491, 1966. 3. Lapides, J., *et al.*: *J. Urol.*, *100*:552, 1968.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in acute, recurrent or chronic urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli*, *Klebsiella-Aerobacter*, *Staphylococcus aureus*, *Proteus mirabilis*, and, less frequently, *Proteus vulgaris*) and in the absence of obstructive uropathy or foreign bodies. *Note:* Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response. Add aminobenzoic acid to culture media of patients receiving sulfonamides. Resistant organisms present a current problem to the usefulness of antibacterial agents. Blood levels should be measured in patients receiving sulfonamides for serious infections, since there may be wide variations with identical doses; 20 mg/100 ml should be the maximum total sulfonamide level, as adverse reactions occur more frequently above this level.

Contraindications: Sulfonamide hypersensitivity; infants less than 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis); pregnancy at term and during nursing period.

Warnings: Safe use in pregnancy has not been established, and teratogenicity potential has not been thoroughly investigated. Sulfonamides will not eradicate or prevent sequelae to group A streptococcal infections, *i.e.*, rheumatic fever, glomerulonephritis. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported; early clinical signs such as sore throat, fever, pallor, purpura or jaundice may indicate serious blood disorders. Complete blood counts and urinalysis with careful microscopic examination are recommended frequently during sulfonamide therapy. Clinical data are insufficient on prolonged or recurrent therapy in chronic renal diseases of children under 6 years.

Precautions: Use with caution in patients with impaired renal or hepatic function, severe allergy, bronchial asthma and in glucose-6-phosphate dehydrogenase-deficient individuals. In the latter, dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias:* agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia; *allergic reactions:* erythema multiforme (Stevens-Johnson syndrome), skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis; *gastrointestinal reactions:* nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis; *C.N.S. reactions:* headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia; and *miscellaneous reactions:* drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide and thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age, except adjunctively with pyrimethamine in congenital toxoplasmosis. Usual dosage is as follows:

Adults—2 Gm (4 tabs or teasp.) initially, then 1 Gm *b.i.d.* or *t.i.d.* depending on severity of infection. *Children*—0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially, followed by 0.25 Gm/20 lbs *b.i.d.* Maximum dose for children should not exceed 75 mg/kg/24 hrs.

Supplied: Each tablet or teaspoonful (5 ml) of suspension contains 0.5 Gm sulfamethoxazole.

In nonobstructed urinary tract infections

Gantanol® B.I.D. (sulfamethoxazole)

12 hours of therapy with every dose

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THE OATH OF HIPPOCRATES

I SWEAR BY APOLLO, THE PHYSICIAN, AND ÆSCULAPIUS AND HEALTH AND ALL-HEAL AND ALL THE GODS AND GODDESSES THAT, ACCORDING TO MY ABILITY AND JUDGMENT I WILL KEEP THIS OATH AND STIPULATION:



TO RECKON him who taught me this art equally dear to me as my parents, to share my substance with him and relieve his necessities if required: to regard his offspring as on the same footing with my own brothers, and to teach them this art if they should wish to learn it without fee or stipulation, and that by precept, lecture and every other mode of instruction, I will impart a knowledge of the art to my own sons and to those of my teachers, and to disciples bound by a stipulation and oath, according to the law of medicine, but to none others.

I WILL FOLLOW that method of treatment which, according to my ability and judgment, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to anyone if asked, nor suggest any such counsel; furthermore, I will not give to a woman an instrument to produce abortion.

WITH PURITY AND WITH HOLINESS I will pass my life and practice my art. I will not cut a person who is suffering with a stone, but will leave this to be done by practitioners of this work. Into whatever houses I enter I will go into them for the benefit of the sick and will abstain from every voluntary act of mischief and corruption; and further from the seduction of females or males, bond or free.

WHATEVER, in connection with my professional practice, or not in connection with it, I may see or hear in the lives of men which ought not to be spoken abroad I will not divulge, as reckoning that all such should be kept secret.

WHILE I CONTINUE to keep this oath unviolated may it be granted to me to enjoy life and the practice of the art, respected by all men at all times but should I trespass and violate this oath, may the reverse be my lot.



Editorial

The History of Medical Ethics

Regulated for centuries, both by external social forces and by internal guidance, the practice of medicine, as early as 4,000 years ago in the vast Assyrian empire, came under control of the tough code of Hammurabi with *lex talionis*, or the principle of an eye for an eye which still operates and sets the common law for malpractice suits today.

Medical ethics or the subtle governing of the relations between physicians and patients is the essence of medical practice. Such principles, passed down from generation to generation of physicians derived from simultaneous pursuit of knowledge and love of one's fellowman, determine the nature of the art of medicine. Although these principles may be altered, they cannot be ignored less the profession lose the qualities that make it such a walk of life.

More than 400 years before the birth of Christ, Hippocrates, studying in the Asclepion at Cos, learned to observe facts and carefully reflect upon them under traditions which taught the wisdom of keeping an open mind regarding innovations in treating patients. His works were compiled in the 3rd century B.C. by a commission of scholars in Alexandria and played a great part in the development of the practice of medicine, being the inspiration and professional guide for generations of doctors to come. In his writings, Hippocrates repeats over and over that we must constantly bear in mind the welfare of the patient. He liberated doctors from fetishes of the past, turning them away from fruitless, morbid speculation, inducing them to accept realities and study the truth revealed by experimentation. The Oath of Hippocrates is only one of seventy two books known as the Corpus Hippocraticum, the collected writings of Hippocrates. Some scholars have come to believe that the oath was the work of the Pythagoren School of Philosophy and incorporated in the Hippocratic writings because its high moral tone corresponded to the idealized image the Alexandrian world had come to form of Hippocrates. The seventy two books appeared to have been written over a long period of time by numerous authors whose names were never recorded. All seventy two books do agree on one basic idea—that disease is a natural phenomenon and that its causes lie within man or his immediate surroundings rather than as had been thought then, brought on by gods or superhuman influences. Several hundred years later, Celsus, a distinguished Roman physician followed the teachings of Hippocrates in advising his students to acknowledge their mistakes and learn from them.

Little is known about medical ethics in the Dark Ages, but in 1140 A.D., Roger the Second of Sicily, formalized a code requiring an examination of physicians in order to practice, after five years of study. Approving this, the Catholic church ordered licensees to treat the poor without fee, to visit the sick daily and avoid collusion with apothecaries. Near the end of the 12th century, Rabbi Moses ben Maimon, a Spanish Jew

practicing medicine in Morocco and Egypt, changed the oath to conform to the ethics of his time, omitting commandments about abortions.* In the latter part of the 13th century a document dealing with medical behavior attributed to Arnold of Villanova, entitled "All the Precautions a Physician Must Observe," was similar in part to the Hippocratic writings, yet solved philosophical problems of medical ethics in a purely practical manner without pretense at idealism. With the Middle Ages giving way to the Renaissance, the pursuit of scientific texts and the revival of the reading of classical books made the Hippocratic oath once more the guiding principles of medical behavior. In the 14th century, Guy de Chauliac, father of surgery, extoled his following to "be modest, dignified, gentle, pitiful and merciful. . . ." At the end of the 15th century, medical schools organized and developed laws providing severe penalties for those who practiced without a license and forbidding a physician to make a grave or even qualified prognosis about his patient's disease without consultation. A fine was inflicted upon any physician who spoke evil of another in public.

In 1794, Thomas Percival, a physician in Manchester, England, published a learned treatise on ethics. Mentioning expression of tenderness by the physician, respect for feelings and emotions of patients, discrimination between medical and surgical patients, need of consultation, avoidance of quack medicine and secret remedies, collection of fees from affluent patients, he also advised compilation of accurate clinical records. In 1823, the German physician, Hufeland, wrote a brief essay in which he attempted to define the unique relationship that binds the physician to his patient based on confidence, dependence and need.

In 1847, at the first real meeting of the AMA in Philadelphia, one of its principal transactions was the establishment of a Code of Ethics based on Percival's writings. Over the next quarter of a century, in a plethora of self-righteous writings on medical ethics, confusion grew between etiquette and ethics. This was compounded by the code's restriction against quacks and homeopaths, the latter being far advanced in their standards of medical care, largely as a result of their gentleness and avoidance of drastic remedies. This was brought to a head by the New York State Medical Society who published in 1882 an abbreviated code allowing their members to consult with homeopaths, at that time legally qualified practitioners of medicine under state law. This resulted in the state society being expelled from the AMA. A partial solution occurred when William Henry Welch, a highly respected pathologist at Johns Hopkins University, succeeded in persuading the AMA at its New Orleans meeting in 1903, to abandon entirely a code of ethics with conflicting rules and use instead a simple set of guidelines as principles of medical ethics. One impediment was that so few realized the extent of variation and conflict between the many ethical theories. Professing a conventional Judeo-Christian ethic without appreciating its implications, yet they, as we today, often practiced a frank hedonism.

There have been many revisions since then. The Nuremberg trials after World War II, gave an impulse to frame the Geneva modification of the Hippocratic Oath in 1948 which was an attempt to update the document and make it relevant to the times. It is imprinted opposite for comparison with the ancient Oath of Hippocrates.

In 1956 a new draft to the AMA code was approved and more recently was added an amendment to accept osteopaths as members.

To define the ethical practice of medicine is not easy for there are many moral principles and there are many answers which have been composed since olden days to the basic question—what is good? Solutions are tentative and relative and the general and ethical problem involves the fundamental question—for what are we living? This must include consideration of our motives, our actions, our conduct, our interpersonal relations, our moods and our behavior. Our ethics today represent generations of experience by trial and error, being the blueprints for the practice and behavior of individuals who make up our assemblage, distilling the best of the past, sustaining the needs of the present and pointing to possibilities for improvement in the future.

As a nation and a culture today, we are experiencing the greatest period of rapid change that man has ever known and something is happening to the whole structure of human consciousness. Every value that was held dear in the decades past has been challenged by a bright, restless and active generation. Patriotism, religious beliefs, hard continued effort and remunerative work are being questioned. Like all professional disciplines, medicine is markedly influenced by

*The Oath of Maimonides was accepted as their code of ethics by the 1971 graduating class of the University of Miami School of Medicine.

the spirit of the times. There are some things, especially in medical practice, however, that are of the essence and cannot be changed in spite of all the upheaval, for should they be altered, the discipline as it has been handed down to us will have lost its soul. Chief among these essentials is the individual morality of the physician, whose honest, whole-hearted dedication to his patients is expressed as being warden of their welfare. The basic reason for a sound and lasting doctor-patient relationship is that the best interest of the patient is put foremost, for where there is love of mankind, there is love of the art.

Recent unparalleled scientific, social and medical advances have brought a myriad of questions as to what does and does not constitute upright conduct for the physician. It cannot be said that the new morality justifies actions heretofore prohibited or puts aside the code of ethics. Progress notwithstanding, we must maintain eternal vigilance to see that this does not prevail.

Understanding social needs, social objectives and active voluntary participation by all in the medical profession must be our aim.

C.M.C.

Hippocratic Oath
(Geneva Modification)

Now being admitted to the profession of medicine, I solemnly pledge to consecrate my life to the service of humanity. I will give respect and gratitude to my deserving teachers. I will practice medicine with conscience and dignity. The health and life of my patient will be my first consideration. I will hold in confidence all that my patient confides in me.

I will maintain the honor and the noble traditions of the medical profession. My colleagues will be as my brothers. I will not permit consideration of race, religion, nationality, party politics or social standing to intervene between my duty and my patient. I will maintain the utmost respect for human life from the time of its conception. Even under threat I will not use my knowledge contrary to the laws of humanity.

These promises I make freely and upon my honor.

This modern version of the Hippocratic Oath was conceived by the World Medical Association at its first Assembly in Paris.

WE ACCEPT, MR. PRESIDENT . . .

America's Doctors of Medicine, meeting at their one hundred and twentieth annual convention in Atlantic City, were challenged by you to assume a role of leadership in three areas of vital interest to our citizens and the health and well being of our society.

Our concern for the nation's health is our entire professional life. We live it . . . we work at it . . . it is the singular objective of our time, our lives and our energy. Your challenge is one that we understand . . . one that we can meet and we accept it eagerly . . . with enthusiasm and dedication.

You challenged us to assume the leadership in a national campaign to shape this country's attitude toward drugs . . . to educate America to the serious dangers of drug abuse.

We accept that challenge.

You challenged us to improve America's health care system . . . to design a system that will insure freedom of choice . . . dedication to quality . . . economic relief for our citizens and protection against catastrophe.

We accept that challenge.

You challenged us to contribute to the health of America . . . not just to its physical health, but to its mental health . . . to its moral health and to its character. By our training, our education and our daily involvement with the lives of people, we are equipped to do that . . .

And we accept that challenge.

You asked us to give . . . of our time . . . of our energy . . . of our training and our dedication.

We give it gladly.

For we share your belief in America. We share your faith in our people and in our future . . . we share your wish that all of our people should enjoy decent standards of food, shelter, education . . . and health. We share your thought that the greatest reward for doing is the opportunity for doing more.

For more than one hundred and twenty years America's Doctors of Medicine have worked together to guard the nation's health, and to create the world's highest standard of medical care for all of our people and we will continue to do so.

To this we have added new programs designed to improve the delivery of health care to the poor and the underprivileged, to increase the number of doctors and to provide more care for more people through the use of physicians' assistants.

We have done much. Much remains to be done.

We accept your challenge . . .

AMERICA'S DOCTORS OF MEDICINE

Reprinted from The New York Times, June 23, 1971.

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LONG TERM THERAPY OF DRUG DEPENDENCY CONDITIONS

Willingway Hospital is a new facility, the first complete hospital to be constructed under the Georgia Hospital Rules and Regulations, revision of November 24, 1969, authorizing residential type units.

Located at the city limits in east Statesboro on an eleven acre tract of woodland in a quiet, secluded area containing a lake, the single story, multi-level hospital consists of a detoxification section and a residential care section. The detoxification unit is equipped and staffed for the withdrawal treatment of any type of intoxication including alcohol, narcotics, sedatives, tranquilizers and other drugs or combinations.

The residential care unit is composed of 26 private rooms with private baths convenient to a comfortable lounge and arranged to achieve an intimate home-like atmosphere. All living units are individually decorated and furnished. No two are alike. Wall to wall carpet throughout.

There is a large day room, inside and outside patios, a dining room where home cooked meals are served, a library and conference rooms. The building is all electric, completely air conditioned with individual controls, and is protected by a modern sprinkler system in all areas.

Male and female patients are admitted to the detoxification unit for withdrawal. When this phase is completed, they are transferred to the residential care unit for continuation of rehabilitative therapy.

The Willingway treatment program operated successfully at another location in Statesboro for four years before moving to the new facility.

Requirements for admission. To be admitted all new patients must agree to the following:

1. Stay 28 days.
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Incoming and outgoing mail is not restricted. Mail is not read or censored. No one is admitted for detoxification only.

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Regional Advisory Group Report

Granville W. Larimore, M.D.

Accepting recommendations of a study committee on task forces headed by Dr. Joseph Zavertnik of Miami, on June 19, in Tampa, the Florida Regional Advisory Group established policy and mission for professional committees to serve the Florida Regional Medical Program. The FRAG Committee worked over a period of several months to develop guidelines on the size and function of categorical Task Forces, proposed a Council on Continuing Education to encompass both previous Education Task Forces (Continuing Education and Health Education) and made a provision for a panel of consultants to be available to Task Forces and the Council. The Committee proposed and the group approved categorical Task Forces for Cancer, Heart Disease, Stroke, Respiratory Disease and Kidney Disease, as well as the Council on Continuing Education. A proposal for a Health Services Task Force was referred to the Planning Committee for further study.

Task Forces will consist of seven members, one from a state or local health department and one from the appropriate volunteer health agency. The Education Council will include ten members, one representative from each Task Force, one from the junior colleges and one from the colleges or universities. All appointments will be made by the group from nominations prepared by a nominating committee. Almost a hundred professionals in Florida, the majority of them physicians, have served FRMP Task Forces in the last two and a half years.

Duties appropriate to the FRAG's Executive Committee were suggested by the group, including an assignment to meet two weeks prior to the group meetings to prepare an agenda.

The group adopted a provision intended to avoid any hint of conflict of interest by providing that any member having direct interest in a proposal shall absent himself during discussion and voting on that proposal.

A Planning Committee headed by Jerry N. Conger, Chief of the State Bureau of Comprehensive Health Planning, was instructed to continue on its mission. The Conger Committee had reviewed FRMP proposals for the use of certain unexpended funds ($48,000) saved by frugal management during the FRMP first quarter operations. The FRAG approved the Committee's report and will recommend the expenditures to the Board of Directors of FRMP, Inc. which will consider the recommendation at its July meeting.

By-laws of the FRAG were amended to permit two additional members, raising the maximum membership to 30. The added membership will provide for representation from the University of Miami and from CHP "B" agencies of which there are presently six in Florida.

Because Florida will undergo a national site visit in connection with its triennial review, the group arranged to expedite both selection of Task Forces and the work of the Planning Committee. FRAG approved preliminary arrangements for developing material necessary for the review, which affects FRMP plans and budgeting for the 1972-73 fiscal year.

Coyle E. Moore, Ph.D., of Tallahassee, is chairman of the FRAG. Only six of the 28 members were absent from the June 19 meeting in Tampa. The Florida Medical Association is represented by 4 practicing physicians.

Dr. Larimore, One Davis Boulevard, Tampa 33606.

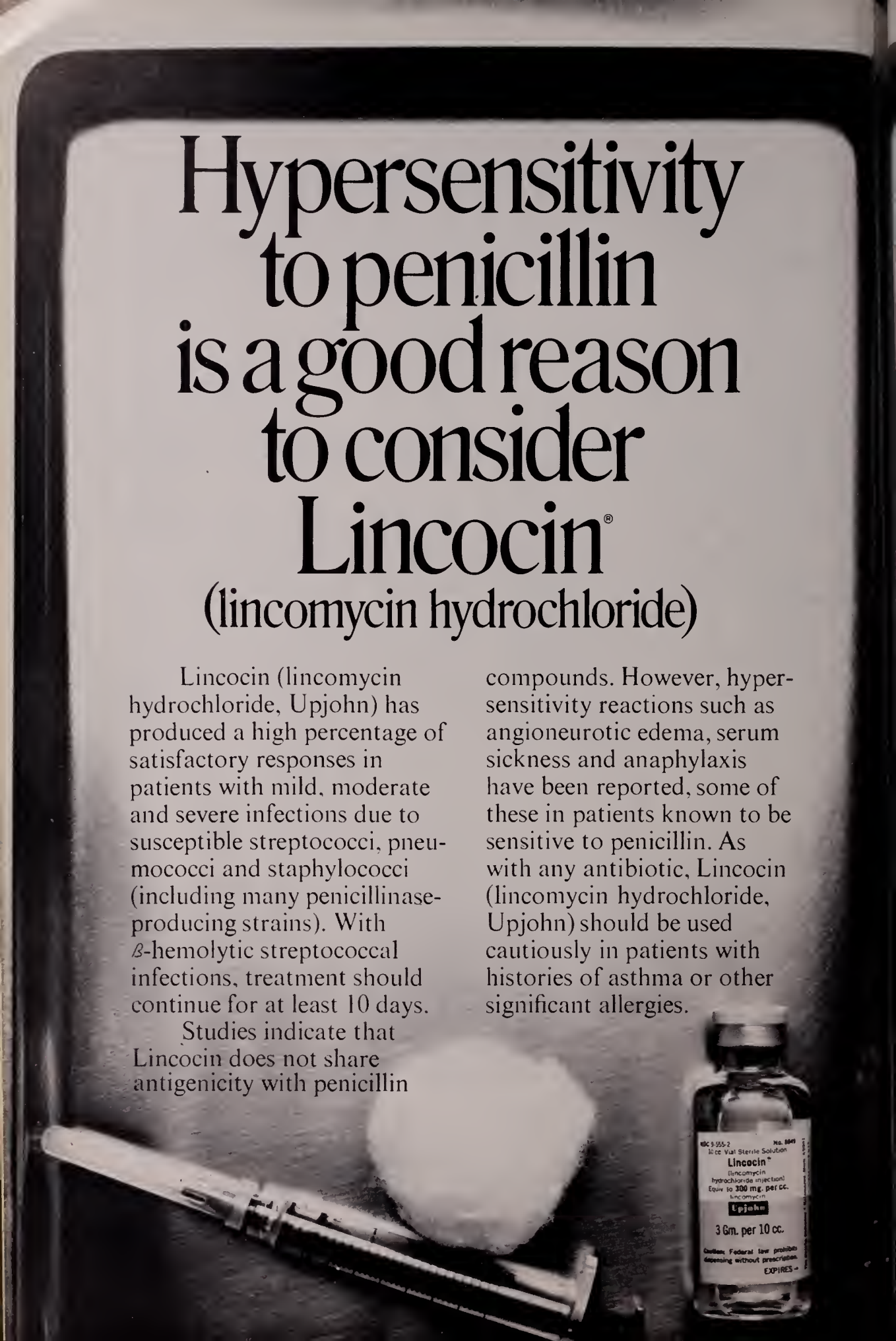
Dr. Larimore is State Director, Florida Regional Medical Program.

Hypersensitivity to penicillin is a good reason to consider Lincocin®

(lincomycin hydrochloride)

Lincocin (lincomycin hydrochloride, Upjohn) has produced a high percentage of satisfactory responses in patients with mild, moderate and severe infections due to susceptible streptococci, pneumococci and staphylococci (including many penicillinase-producing strains). With β-hemolytic streptococcal infections, treatment should continue for at least 10 days.

Studies indicate that Lincocin does not share antigenicity with penicillin compounds. However, hypersensitivity reactions such as angioneurotic edema, serum sickness and anaphylaxis have been reported, some of these in patients known to be sensitive to penicillin. As with any antibiotic, Lincocin (lincomycin hydrochloride, Upjohn) should be used cautiously in patients with histories of asthma or other significant allergies.



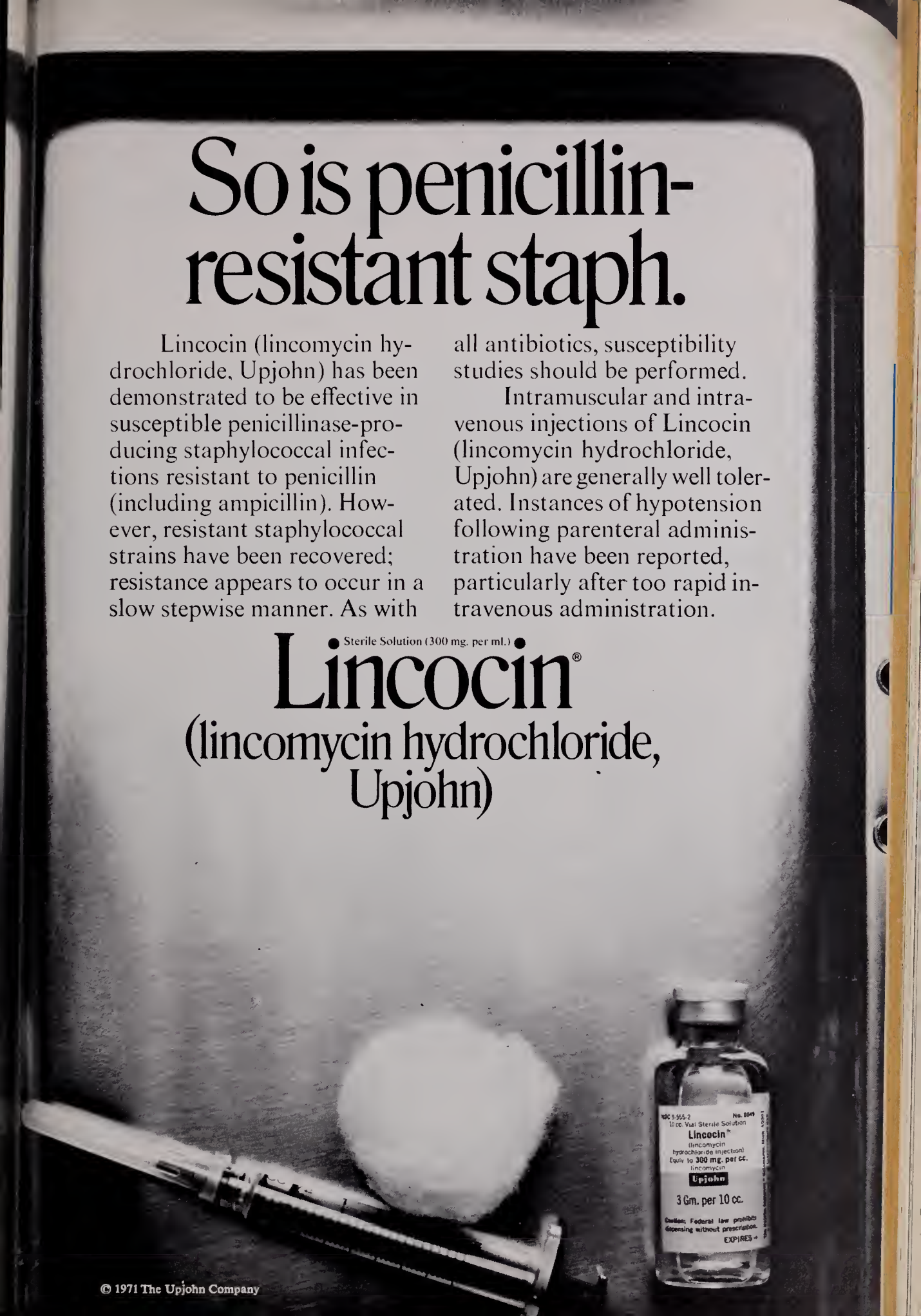
So is penicillin-resistant staph.

Lincocin (lincomycin hydrochloride, Upjohn) has been demonstrated to be effective in susceptible penicillinase-producing staphylococcal infections resistant to penicillin (including ampicillin). However, resistant staphylococcal strains have been recovered; resistance appears to occur in a slow stepwise manner. As with all antibiotics, susceptibility studies should be performed.

Intramuscular and intravenous injections of Lincocin (lincomycin hydrochloride, Upjohn) are generally well tolerated. Instances of hypotension following parenteral administration have been reported, particularly after too rapid intravenous administration.

Sterile Solution (300 mg. per ml.)

Lincocin®
(lincomycin hydrochloride, Upjohn)



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Sterile Solution (300 mg. per ml.)

Lincocin®

(lincomycin hydrochloride, Upjohn) for respiratory tract, skin, soft-tissue, and bone infections due to susceptible streptococci, pneumococci, and staphyloco

Each preparation contains:	Lincomycin hydrochloride monohydrate equivalent to lincomycin base
250 mg. Pediatric Capsule	250 mg.
500 mg. Capsule	500 mg.
*Sterile Solution per 1 ml.	300 mg.
Syrup per 5 ml.	250 mg.

*Contains also: Benzyl Alcohol 9 mg.; and, Water for Injection—q.s.

An antibiotic chemically distinct from others available, indicated in infections due to susceptible strains of staphylococci, pneumococci, and streptococci. *In vitro* susceptibility studies should be performed.

CONTRAINDICATIONS: History of prior hypersensitivity to Lincocin (lincomycin hydrochloride). Not indicated in the treatment of viral or minor bacterial infections.

WARNINGS: Cases of severe and persistent diarrhea have been reported and at times drug discontinuance has been necessary. This diarrhea has been occasionally associated with blood and mucus and at times has resulted in acute colitis. This reaction usually has been associated with oral therapy, but occasionally has been reported following parenteral therapy. Although cross sensitivity to other antibiotics has not been demonstrated, make careful inquiry concerning previous allergies or sensitivities to drugs. Safety for use in pregnancy has not been established and Lincocin is not indicated in the newborn. Reduce dose 25 to 30% in patients with severe impairment of renal function.

PRECAUTIONS: Like any drug, Lincocin should be used with caution in patients having a history of asthma or significant allergies. Overgrowth of nonsusceptible organisms, particularly yeasts, may occur and require appropriate measures. Patients with pre-existing monilial infections requiring Lincocin therapy should be given concomitant antimonilial treatment. During prolonged Lincocin therapy, periodic liver function studies and blood counts should be performed. Not recommended (inadequate data) in patients with pre-existing liver disease unless special clinical circumstances indicate. Continue treatment of β-hemolytic streptococci infection for ten days to diminish likelihood of rheumatic fever or glomerulonephritis.

ADVERSE REACTIONS: *Gastrointestinal*—Glossitis, stomatitis, nausea, vomiting. Persistent diarrhea, enterocolitis, and pruritus ani. *Hemopoietic*—Neutropenia, leukopenia, agranulocytosis, and thrombocytopenic purpura have been reported. *Hypersensitivity reactions*—Hypersensitivity reactions such as angioneurotic edema, serum sickness, and anaphylaxis have been reported, sometimes in patients sensitive to penicillin. If allergic reaction occurs, discontinue drug. Have epinephrine, corticosteroids, and antihistamines available for emergency treatment. *Skin and mucous membranes*—Skin rashes, urticaria, vaginitis, and rare instances of exfoliative and vesiculobullous dermatitis have been reported. *Liver*—Although no direct relationship to liver dysfunction is established, jaundice and abnormal liver function tests (particularly serum transaminase) have been observed in a few instances.



Cardiovascular—Instances of hy sion following parenteral administ have been reported, particularly aft rapid I.V. administration. Rare ins of cardiopulmonary arrest have be ported after too rapid I.V. administr If 4.0 grams or more administere dilute in 500 ml. of fluid and admi no faster than 100 ml. per hour. *reactions*—Excellent local tolerance onstrated to intramuscularly adminis Lincocin. Reports of pain followir jection have been infrequent. Int nous administration of Lincocin ir to 500 ml. of 5% glucose in dis water or normal saline has produce local irritation or phlebitis.

HOW SUPPLIED: *250 mg. and 50* Capsules—bottles of 24 and 100.

Sterile Solution, 300 mg. per ml.— 10 ml. vials and 2 ml. syringe.

Syrup, 250 mg. per 5 ml.—60 ml. an bottles.

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Dean's Page

The Formal Education of the New Physician

E. M. Papper, M.D.

Most of us in the medical profession have long since accepted the idea, some with great delight, some with resignation and some with opposition that the period of education for a physician is co-existent with his active lifetime of work.

This essay is concerned with putting forth specific suggestions about the *formal* part of this lifelong educational process.

It is the thesis of this note that the period of formal education in medicine should begin with the end of the secondary school and conclude with the end of the residency period.

If one accepts this point of view, it is clear that there are three periods of formal education. They are quite discrete from each other at present and often in actual conflict with each other. The first of these in time, the collegiate level, varies in direction from a period of two years to four pre-baccalaureate years. This time of preparation for medical school is frequently haphazard, usually uncoordinated with what will take place in the Schools of Medicine and as a rule, undirected toward an ultimate career choice.

Since there are legitimate reasons why a young man or woman might not be ready to choose a career at the age of eighteen or why colleges of arts and sciences might feel that a "liberal" education is infinitely superior to a vocationally-oriented one, more experiments in education should be undertaken to attempt to satisfy these purposes and still coordinate the collegiate phase of formal education with that of the School of Medicine.

It is our plan at the University of Miami to attempt such an experiment with the full cooperation of our faculty colleagues in the College of Arts and Sciences and with a small group of approximately fifteen students who are gifted intellectually, to see whether a combined program of either five or six years can be developed. This program will attempt to deal with the problem of repetition of basic science courses and where the medical student, in his approach to fundamental science or clinical science, will actually be liberated from the present burden of later taking a series of elementary courses in the basic medical sciences in medical school which do not get into sufficient depth in the spirit of a truly graduate program of education. This type of activity will encourage closer working arrangements with basic science departments in the School of Medicine and their appropriate colleagues in the College of Arts and Sciences.

The intermediary part of medical education is the School of Medicine of the University. It should be the center of management of formal education and can be an influence toward flexible and varied programs which will convert a medical school into a graduate school in the best sense of that designation. Exposure to patient care could conceivably occur, not only in the early part of the first year of medical school as it is at present, but even earlier in the collegiate pre-baccalaureate period since this pattern will be coordinated with subsequent clinical education. For instance, if one taught reproductive biology in the collegiate level of the period of formal education, there would be participation by clinicians and clinical problems could be presented along with the basic science information that is being delivered to the student.

The last part of formal medical education is the period of the residency in the hospital. It is not my present intention to get into the question of how much is clinical service and how much is education in a residency. Everyone acknowledges the fact that there is a large, and perhaps, an overwhelming service component to this period, but it nonetheless is the analogue of graduate education to postdoctoral education in any of the other sciences, or for that matter, in the humanities. It is, as John Dewey taught, "learning by doing."

It is thoroughly recognized that the control of this period of education which is now blurred, essentially is a hospital matter in coordination with the various specialty boards who in turn are

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responsible to the American Medical Association Council on Medical Education. One could raise the very legitimate question as to whether the service component should not be a hospital function and the educational component become a University function guided, constructed and controlled by the Schools of Medicine. If this view were to become a reality, the various specialty boards would be able to concentrate on examinations, criteria for admission to the specialty boards and perhaps preparatory courses prior to taking their examinations. They would no longer be concerned with the educational content of that period, but would rely on an outstandingly competent examination to determine who should be recognized as a specialist and who should not.

The School of Medicine, therefore, has an opportunity and a responsibility to extend its inspiration proximally and distally in time in formal medical education. Despite the problems and the difficulties, these moves should ensure progress in medical education, economy of time and money in the production of doctors of medicine, and a rationalizing influence in institutions participating in formal medical education.

▸ Dr. Papper, Box 875, Biscayne Annex, Miami 33152.

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Malpractice Insurance for Whole States

Attorney Richard P. Bergen, director of the legal research department in the AMA General Counsel's office, reports that AMA may soon sign a contract with the CNA Insurance Group of Chicago to jointly sponsor a malpractice insurance program for at least three states—still to be chosen.

Such a contract would climax a year's work "dating back to the time the trustees looked for solutions to the national professional liability problem" and it would put the AMA out front in the move, via several federal and private initiatives to ease the crisis in which doctors in some states find malpractice insurance rates unbearable and increasingly hard to get.

Bolstering private initiative was the Argonaut Insurance Co. of Menlo Park, California, which has just signed a contract with the medical societies of Pennsylvania, Idaho, and Hawaii to provide long-term coverage for doctors in these states. The terms of this contract are similar to those the AMA is negotiating with the CNA for three yet-to-be-named states: three years of guaranteed coverage, to be extended to five if 60% of eligible doctors have signed up by that time.

Once the general contract is signed, AMA will help poll doctors in various states, "and when enough interest is expressed, medical societies in these states can join."

Our problem is that state medical societies may be unable to institute the kind of tight peer review system one gets in certain group practice arrangements. A recent announcement was that CNA agreed in a five-year pact to provide insurance for a substantial portion of the 10,000-member American Association of Medical Clinics. Premiums for clinics with 15 to 40 doctors will range from $20,000 to $50,000 a year, providing $100,000 protection for each physican. Individual policies currently cost about $2,000 a year.



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MEDICAL HISTORY ISSUE

The Journal acknowledges with pride the fourth straight year that Dr. William Straight, Instructor in History of Medicine at the University of Miami, has written and compiled the papers for the August issue. In 1965, when the first historical issue was conceived, Dr. Straight was a contributing author as well as in 1966 and 1967; then becoming the historical editor in 1968 and in each subsequent history issue. These editions have gained more than statewide interest, for every year requests are received for copies from history buffs all over the country.

With this publication we would encourage our readers over the state to probe their local areas for medical history as undoubtedly Dr. Straight is already collecting material for another volume next year. He also has been given the job of writing the historical data for the 100th anniversary of the Florida Medical Association in 1974 and has been asked by the Department of HEW to provide the history of Medicine in Florida during 1776 to commemorate our nation's bicentennial birthday. Having served a number of years as chairman of the FMA Archives Committee, sitting on FMA reference committees and serving as delegate from Dade County, he is a perennial collector of medical history in Florida, and somehow finds time to practice internal medicine, being certified in his specialty.

The Yellow Jack

WILLIAM M. STRAIGHT, M.D.

When the Reverend Mr. Fowler arrived in St. Augustine to establish the Protestant Episcopal Church in East Florida, he found the city in a mortal struggle with the dreaded yellow fever. He writes: "The morning after I arrived in St. Augustine (October 4, 1821), I began to visit the people, especially the sick and dying; . . . I passed through many trying and awful scenes, and was sometimes almost ready to sink under those shocking spectacles of grief and affliction which I saw. The sick were strangers in a strange land and many of them were destitute of the means of support for themselves and families. To hear the sorrowful moans of parents expecting in the course of a few minutes or hours at most to be snatched away by the cruel and relentless hand of death from a young and numerous flock of children; children bewailing the sad fate of a dying parent; to see wives taking their final leave and last farewell here on earth of their fond and indulgent husbands; to be present and obliged to witness the distresses of such as had near and dear friends, fathers, mothers, brothers, sisters, and children at a distance and expecting to see them no more in this world; were circumstances truly affecting and heart rending. . . I was sent for one afternoon to visit an Irishman. . . there were two other men in the same room in the last agonies of death. . . I was invited into the next room where lay two more Irishmen. . . I was asked to go upstairs. . . I found a man lying in one corner and his wife in another. . . not one of these seven persons lived to see the next day's returning sun."[1]

"During the prevalence of the sickness in Augustine in the year 1821, the General (General Jose Mariano Hernandez) had two families of negroes settled at Bella Vista, on the eastern shore of the Matanzas River, and on a hill elevated twenty feet above the level of the water, on the widest part of the river, and most free from marshes; . . . and distant about a mile from Mala Compra where his principal gang of negroes amounting at that time to nearly 100 were settled. . . About the middle of December, a mechanic in the employ of Mr. Bulow arrived at this place from St. Augustine on his way to Bulow's, situated a few miles below. This man was taken sick after his departure from Augustine, and on the very day of his arrival. He was so ill that he had to be taken out of his canoe by a man named Mars, whose residence was at Bella Vista, but who happened to be in the saw-pit at Mala Compra, and who was sent for that purpose. The sick man received every assistance possible at the plantation until a cart came for him from Bulow's, in which he was carried to that place, where he died soon after. Mars returned that night to his house at Bella Vista and observed to his wife that he had carried a white man in his arms who came from town and was sick, and that he knew he had caught his sickness. On that very night he was taken sick, and the next day the General who

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went from Augustine to Mala Compra, on hearing of his sickness, had him removed to the latter place, where better attention could be shown him. Here he died on the 6th day of his disease. When he died, his skin from being of a jet black, became yellowish, also the palms of his hands, the soles of his feet, nails and eyes. Daphne, his wife, who was also brought from Bella Vista to Mala Compra to take care of her husband took sick 4 days after his death and died in 2 days. She was also yellow but not so strongly marked as Mars. . . Sue while attending on these patients, also took sick and died in about 2 weeks. The yellow tinge about as perceptible as Daphne. Binah who attended Sue was taken sick about one week after her, and died in about twelve days. Old Friday who was constantly with all of these took sick on the day of Sue's death, was ill two weeks and died, his skin very yellow. . . . General Hernandez saw Mars on the second day of his sickness . . . the treatment was at first emetics and afterwards Calomel and Castor Oil."[2]

Epidemic at St. Augustine

Thus an eyewitness and a physician who investigated the epidemic 28 years later describe the terror of the epidemic in St. Augustine, September 10 to December 8th, 1821. Spain sold Florida to the United States and the date of the transfer was set for July 10, 1821. In anticipation of this, many of the Spaniards boarded up their houses, piled their refuse on the streets, and left for Havana. Yards were overgrown and there was little effort at sanitation. In a letter to the August 4th issue of the Florida Gazette, St. Augustine's newspaper, a citizen complained, "In an evening walk your olfactory nerves are often assailed by a nauseous effluvia from filthy yards, that is scarcely endurable. Complaints of these nuisances have been made to the proper authorities—the facts admitted, and the evil continues."[3]

Also in preparation for the transfer, the town was filled to overflowing with newcomers involved in the transfer: government officials, civil employees and their families, a large garrison of soldiers, prospective settlers and their families, get-rich speculators, and social parasites.

Nature herself seemed to curse the transfer for about the first of May, the sands shifted closing Little Matanzas Inlet, 20 miles south of the town. Whereas prior the tides had daily changed the waters of the bay, now they became stagnant and the vegetation and shellfish died, creating a nauseous odor which was wafted over the town by the prevailing southeast breeze. The summer was hot well into November, the rainfall unusually heavy, and the mosquitoes were plentiful.

The official transfer having been accomplished about July 15th, the remaining Spanish residents and troops boarded several transports and sailed for Havana. A few days later, one of these transports, the sloop Rapid returned to the wharf at St. Augustine where two of her crew died of yellow fever. About a week later, a second of the transports, the Alexander, arrived off St. Augustine and had to be piloted in by two St. Augustine residents who were passengers; the captain and the entire crew except the cook had died of yellow fever during the passage from Havana. The cook died the following day. While the Alexander lay at anchor at the quarantine ground, some of the bedding and other personal effects of the deceased crew were thrown overboard in cleaning the ship. Portions of this were retrieved by a lawyer, and newly appointed Judge, Thomas Fitch, who was on his way to his plantation about 20 miles north of St. Augustine. Both the Judge and a Negro woman who washed these articles came down with yellow fever. The Judge died on September 10th, possibly the first casualty among the residents of St. Augustine.

Although at first the populace and the Board of Health saw no cause for alarm, by the last of September new cases were appearing at a frightening rate. On September 27th the Board of Health appointed a commitee to look to the care of the indigent and provide them with nurses. They authorized citizens having indigent sick in their homes to draw upon the city treasurer the sum of $2 per 24 hours for nursing care. Drs. Micah Stone, Resident Physician and President of the Board of Health, and Charles N. McCrosky, an Army Surgeon, were empowered to care for the indigent and be reimbursed by the city for reasonable charges for medicines and attendance. They also debated the building of a "Lazaretto" in the northeast extremity "of the public ground," but later abandoned this and contracted for the use of a house "over the bridge" as a hospital for the indigent. Arrangements were made to supply coffins for the indigent at $5 each and to pay the sexton $3 for each burial. With the death of Judge Fitch, arrangements were made to establish a Protestant burial ground (now known as the Hugenot Cemetery) as he could not be buried in the only existing cemetery, which was for Catholics.

On the following day the Board issued a warning to the citizens, particularly strangers, to avoid

unnecessary exposure (to rain and heat) "until a change of atmosphere takes place, which is under Divine Providence daily expected."* They also recommended the citizens pay particular attention to cleanliness, temperance, and the removal of nuisances. The City Council made it unlawful, on pain of a stiff fine, to sell the bedding and apparel of persons dying of the fever, and appropriated funds to pay for the appraisal of such items, the reimbursement of the owners, the transport of these items beyond the city limits, and the burning of them.[4]

There were at least six physicians in St. Augustine during the 1821 epidemic: Drs. Stone and McCrosky, William H. Simmons of South Carolina, Richard Murray from Ireland, J. T. C. McMahon who replaced Stone upon his death (December 3, 1821), Edward R. Gibson of Maryland, Richard Weightman from Meine, Rhine, and G. E. deSaussere from South Carolina who apparently left St. Augustine in early September, 1821. Strobel, quoting Dr. Simmons, says: "The mercurial treatment was fully tested by the physicians of the place (St. Augustine), and was signally unsuccessful—so much so as to create a lasting prejudice in the minds of the people against the use of that remedy. By the mercurial treatment is meant the attempt to arrest the disease by salivation, as a purgative, Calomel did good. The disease was so fatal as to destroy confidence in all modes of treatment adopted. The Doctor does not think that bleeding was used to any extent. Sugar of lead was tried, towards the close of the season, in some cases with success."[2]

Despite the efforts of the Board of Health, City Council, and the physicians, the daily death toll continued to mount. On October 6th, the Secretary and Acting Governor of East Florida, W. G. D. Worthington, wrote to Andrew Jackson, Territorial Governor of Florida: "I enclose you poor Penier's Obituary—Seldom has anything struck upon my heart so painfully as this event—He was at my house on tuesday night, gay, interesting and delightful. Alas on thursday night he breathed his last—

"This vile Black vomit plays sad work amongst us—My Chief Judge (Thomas Fitch)—Our Indian Agent (Jean A. Peniers)—and about half a dozen others of my friends already sleep in a watery grave about two feet and a half below the Surface of this Peninsula—

"I have lost but one person of my own family as yet . . ."[5]

On November 12th, Worthington wrote to the Secretary of State, John Quincy Adams, "The sickness rages here still beyond any thing I ever saw or heard of. I will give you a melancholy example—Viz Chief Justice Fitch, died some time ago—since then his two sons & last night his wife & his remaining child—He was a native of Massachusetts—was worth a large estate, from the practice of the Law in Georgia & his wife, a sister or near relative of Governor Clarke (Governor John Clarke of Georgia)—

"No frost here yet—& They say it will not stop till we have a black frost. . ."[5]

Early in the epidemic the age old custom of tolling the church bells at each death was followed but as the number of deaths increased the constant tolling of the bells became so demoralizing the custom was abandoned. During his visit of just over a month, October 4th to November 9th, 1821, the Reverend Mr. Fowler saw 95 persons buried. Although no accurate statistics have come to light, Wiles states there were 132 civilian deaths (3 Negroes) and 40 deaths among the military. Included in these were two of the six physicians, Drs. Stone and McCrosky.

During and after the epidemic there was much speculation as to its cause. Simmons in 1822 writes, ". . . a single case is not sufficient to produce the disease; but that a season generally sickly, or a state of air, predisposing the constitution to disease, in combination with the putrescent effluvia of a crowded city, and the moisture, or some other circumstance connected with maritime situations, constitute, at least, a part of the causes and various *juvantia* which go to the formation of the pestilence."[6] However, an editorial in the Florida Gazette (October 21, 1821) accompanying the obituary of the publisher, Richard W. Edes, states, ". . . There is no doubt but what the prevailing epidemic was brought here by two vessels from Havana, and by them communicated to our citizens. . ."

Yellow Fever Origins

Yellow fever seems to have been first known to Europeans soon after the discovery of the New World. One writer states, "The first accurate description of yellow fever seems to be the one written in the year 1495, after the battle known as Vega Real or Santo Cerro, fought by Columbus in Hispaniola against the Indians."[7] Perhaps the first clear account in a medical text appears in

*The author is indebted for most of the information about the epidemic in St. Augustine in 1821 to Doris C. Wiles (1907-1968), Administrative Historian of the St. Augustine Historical Society, who left the partially completed manuscript noted in the bibliography.

Tratado de las siete enfermedades by A. de Abreu printed in Lisbon in 1623.[8] The first use of the name "Yellow Fever" appears in Griffith Hughes' Natural History of Barbadoes, published in 1750. A total of 152 names by which this disease has been known are listed by Augustin.[9]

The first yellow fever epidemic within the confines of the present United States occurred in Boston in 1693.[10] The first reference to yellow fever in Florida that has thus far come to light is a mention of it in British West Florida in the summer of 1764. There is no specific mention that it appeared in Pensacola at that time but in September, 1765, the British governor wrote, "Above one Fourth of the Soldiers have already died, and one Fifth of the Inhabitants." He was clearly referring to yellow fever at Pensacola.[11] During the succeeding century and a half the yellow jack scourged the length and breadth of our state many times with a fearful mortality creating havoc and panic. In 1841, when it "wiped out" the booming town of St. Joseph, known for its gambling and vice, it was viewed by the God fearing as the hand of God smiting the wicked. The epidemic of 1867 at Fort Jefferson on Dry Tortugas led to the meritorious service of Dr. Samuel Mudd, imprisoned there for setting the leg of Lincoln's assassin, John Wilkes Booth, and helped to win his pardon two years later. Indeed, it was yellow fever together with other "mal-arious" diseases that led Dr. John Gorrie of Apalachicola to invent the first practical artificial ice machine. Gorrie envisioned the cooling of the sickroom to, "decompose and absorb the miasmatick and infectious impurities existing in the air during the prevalence of . . . diseases that are looked upon as more emphatically the effects of malaria."[12] Since ice was a scarce item on the hot gulf coast during the summer, he set about to manufacture it. Thus the beginning of artificial refrigeration including the air conditioning which we enjoy today.

The ancient Romans thought that certain diseases might be carried by insects to man and Giovanni Lancisi (1717) postulated that malaria was acquired by mosquitoes from the foul marsh air and transmitted to man. The term "malaria" at that time and for almost a century and a half afterwards meant literally "mal-aria" and fevers such as the intermittent (malaria as we use the term today) and remittent (yellow fever, typhus, etc.) were classed "malaria." When in 1749, Dr. John Moultrie, first American graduate of Edinburgh and later Royal Lieutenant Governor of East Florida, presented his doctoral thesis on yellow fever he refers to mal-aria as the antecedent cause of this disease. "The proximate cause of this malady seems to be the acrimony of the fluids; and of antecedent causes, chiefly the intense heat of the air and excessive movement of exertion. Moreover, the copious exhalations and putrid miasmas which, chiefly by the force of the heat, are lifted into the air from swamps, pools, and subterranean places and which abound especially in the immense forests in America with their great number of poisonous trees, must be reckoned among the antecedent causes of this disease. . ."[13] Almost a century later, the same thoughts are voiced by Samuel Forry as he attributes intermittent fevers, remittent fevers, bilious fevers, etc. to, ". . . exhalations from absorbent or deep exuberant, or marshy soils, suspended in atmospheric humidity at temperate grades of warmth."[14] However, even in the 18th century there were those who thought it did not arise from the bad air of the swamps but was brought by ships from "Jamaica or Havannah, as was the case in 1765."[15] The debate of local origin versus importation was to rage for another century.

Soon after the discovery of microorganisms in the late 17th century, the thought arose that these might somehow invade man and cause disease. An early believer that microorganisms might cause yellow fever was Dr. John Crawford of Baltimore (1790).[16] Josiah Clark Nott of Mobile, Alabama, in 1848, attempting to explain the appearance of yellow fever on hilltops states: "It would certainly be quite as philosophical (as the "mal-arial" theory) to suppose that some insect or animalcule, hatched in the lowlands, like the musquito (sic), after passing through its metamorphosis, takes flight and either from preference for a different atmosphere, or impelled by one of those extraordinary instincts which many are known to possess, wings its way to the hilltop to fulfill its appointed destiny."[17] He doesn't conceive of the "musquito" as carrying the germ of yellow fever but as the proximate cause of yellow fever.

One of the more exotic theories of the cause of yellow fever seems to be the brainchild of a John Gamgee. In a tract published in 1880, he urges the construction of a ship channel across North Florida so that ships from eastern cities could avoid travel through equatorial waters en route to New Orleans. He believed, "The probabilities are that the putrescent water crammed with Sarcode, near or within the tropics, is the

true parent of yellow fever infection, just as we know that vegetable decay surrounds this city with agues and bilious remittent." To keep a ship healthy, he felt it "must be driven fast through the dense beds of pelagic life, or kept out of them. . ."[18]

Many of the characteristics of yellow fever were common knowledge perhaps a century and a half ago: It was to be found near the seacoast and marshy soils; it was a disease of the towns and removal to the woods often protected people; it seldom attacked the natives of an area (Finlay in the late 19th century attributed this to subclinical attacks in childhood); one attack usually conferred lifelong immunity; it was less frequent and less severe in the Negro; the risk of acquiring the disease was greater at night; freezing weather ended an epidemic; and it could persist throughout the winter months in Florida where the thermometer didn't drop below sixty degrees.

The question of transmission from person to person or from fomites to person divided the doctors into two schools: the contagionists and the noncontagionists. The contagionists thought that contact with a patient, the patient's clothing or personal effects, even with such things as wagon wheels, machinery, and gasoline, from an epidemic area could spread the disease. Indeed, during the last known epidemic in Florida, Pensacola, 1905, Alabama would allow Florida oranges to pass through only if they were in screened cars, and Apalachicola and Carabelle turned away at gunpoint a ship load of brick and gasoline.[19]

As early as 1802, Stubbins H. Ffirth (1784-1820),[20] a medical student at the University of Pennsylvania, carried out a series of experiments to prove the noncontagious nature of yellow fever. Having tried unsuccessfully to transmit the disease to cats and dogs, he slept in the soiled clothing and bedding of yellow fever patients, he repeatedly swallowed quantities of "black vomit" expelled by yellow fever patients, he dropped black vomit into the conjunctival sac of his eye, inhaled the vapor of black vomit being boiled on the stove, and he "frequently" lanced his skin, inserted black vomit or serum of yellow fever patients, then sutured the wound; in no instance did he acquire yellow fever. When he published his results in 1804, his experiments were criticized as "disgusting and unnecessary" and the lesson they taught was largely overlooked.

The presence of unusual numbers of mosquitoes during yellow fever seasons was noted as early as 1797 by Benjamin Rush. Others later, including Richard Weightman at St. Augustine in 1833, commented on this. Although Louis Daniel Beauperthuy of Guadeloupe is usually mentioned as the first one to definitely implicate the mosquito as transmitting yellow fever with its bite (1853), he did not clearly differentiate yellow fever and malaria.[21] A Tampa physician, John Perry Wall, who was a student of yellow fever, reached the firm conclusion that yellow fever was carried by the mosquito as early as 1873.[22] In 1858, a Cuban physician, Carlos Juan Finlay, began a lifelong study of the transmission of yellow fever which culminated in his announcement on February 18, 1881, that "an agent entirely independent for its existence of the diseased and of the sick" was required to spread the disease.[23] He tells us he had in mind the Culex mosquito which was also known as Culex aegypti, and Stegomyia fasciatus, and after 1920, as Aedes aegypti. Finlay attempted to transmit yellow fever from patients to nonimmunes by these mosquitoes 103 times without a single unequivocal success. An indispensable bit of the puzzle was missing.

Quarantines

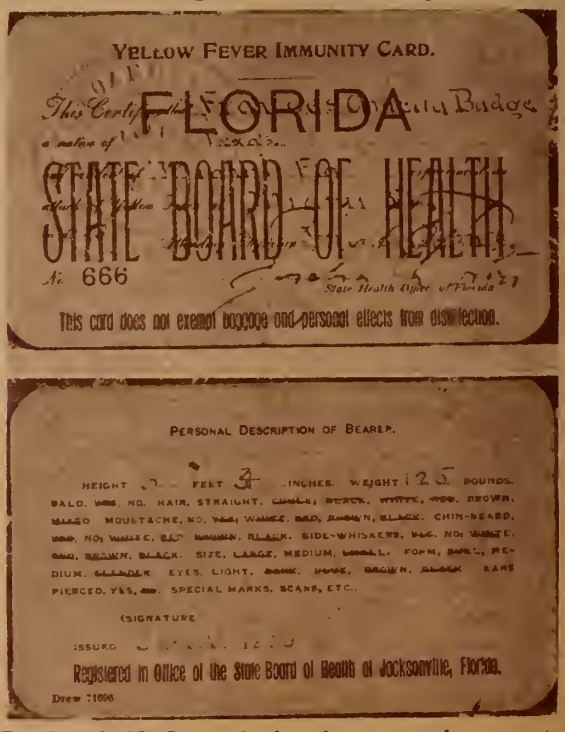
The quarantine was of vital importance for those who believed in the importation of the disease, and those who believed in local origin usually paid lip service to this procedure for the disease was too serious to omit any step that might help ward it off. Thus, the quarantine regulations at Pensacola in 1828 read, "There shall be a Health Officer appointed for the Quarantine, who shall, before he enters on the duties of his office, take an oath that, whatever may be his opinion with regard to the origin and infectious nature of Yellow Fever, he will be as vigilant in preventing its introduction as though he believed it to be of foreign origin. . ."[24] Although the term quarantine was not used, the first actual practice of quarantine in Florida was by the British in West Florida when they restricted smallpox patients to their ships.[11] Another early mention of isolating a patient with communicable disease appears in the Cabildo Records of the Municipal Corporation of St. Augustine, April 13, 1814. On that date a committee was appointed to examine a Negro slave suspected of having smallpox, "and if it results that the contagion is true, to make his master remove him from the environs of this city, (in order) to prevent all communication, to a distance where the air cannot propagate the disease."

One of the first acts of Andrew Jackson, first Territorial Governor of Florida, was to establish (July 19, 1821) a Board of Health at Pensacola, "to take active oversight of the quarantine and health regulations."[25] Throughout the 19th century quarantines of 24 hours to ten days, and even at times up to 30 days, were more or less enforced by local boards of health. Initially, there were boards of health only at Pensacola and St. Augustine, but later at other port towns. These local boards were autonomous and often did not act in concert. During the Reconstruction Period the Federal Army of Occupation provided some uniformity of health measures[26] and possibly as the result of this, the "Carpetbag Constitution" of Florida, enacted in 1868, attempts to provide a mechanism of statewide "quarantine of the coast" in its Article VII, Section 8. However, little effort was made to implement this provision. For example, at Key West, sponge-boats, wreckers and other small craft sailing along the reef were exempt from inspection by health officers even though it was well known they often made illicit trips to Havana where yellow fever was endemic.[27] In 1873 a bill to establish a State Board of Health, which carried an appropriation of $200, was rejected by the legislature because of the "exorbitant" amount of money requested. Governor George F. Drew recommended a state controlled quarantine, and in 1879 an act to create a uniform system of quarantine by establishing boards of health in incorporated towns and in counties without incorporation was enacted. However, this did not get around the problem of the autonomy of these boards. During his first administration (1881-1885), Governor William D. Bloxham again urged a state controlled quarantine and the formation of a State Board of Health, but the legislature would not pass enabling legislation. The Constitution of 1885 includes an article establishing a State Board of Health but no appropriation was made to implement this. Writing to Surgeon General John B. Hamilton, Governor E. A. Perry (1885-1889) stated that he had repeatedly sought enabling legislation for a State Board of Health and was repeatedly denied. In 1887, because of the oppressive restrictions on trade and travel resulting from local quarantine regulations "incited by terror rather than the immediate presence of any real danger," a number of the boards of health of counties in South and East Florida organized the Florida Health Protective Association to enforce the coast quarantine and allow the interior counties to relax their barriers, thus facilitating trade without incurring the risk of yellow fever.

The quarantine or exclusion of ships from Havana or other ports suspected to be infected with contagious disease never failed to rankle the business interests. This was especially true in towns such as Key West where there were close business and personal ties to Cuba. Indeed, the quarantine was circumvented "by orders from a superior authority" and yellow fever knowingly introduced at Key West in 1867.[27] In 1885, attempting to protect the health of Key West and at the same time minimize the disruption of trade with Cuba, Dr. Joseph Y. Porter, then the Monroe County Health Officer, instituted a passcard system. Anyone who could prove they had survived an attack of yellow fever, anyone born and raised in an endemic area and thus presumed immune, and Negroes (presumed relatively immune by virtue of their race) were issued yellow fever passcards. By showing these they could pass the quarantine officers without delay. This system was suggested during an epidemic in New Orleans in 1853 by Dr. Samuel A. Cartwright.[28] Later this system was adopted by other counties of South Florida.

Sanitation and Therapy

During epidemics various measures were tried to escape the contagion or drive it away.[29] Lind mentions seven gentlemen who escaped "violent


YELLOW FEVER IMMUNITY CARD.

FLORIDA

STATE BOARD OF HEALTH

No. 666

This card does not exempt baggage and personal effects from disinfection.

PERSONAL DESCRIPTION OF BEARER.

HEIGHT ... FEET 5 ... INCHES. WEIGHT 125 POUNDS.

BALD, YES, NO. HAIR, STRAIGHT, CURLY, BLACK, WHITE, RED, BROWN, GRAY.

GRAY MOUSTACHE, NO, YES; WHITE, RED, BROWN, BLACK. CHIN-BEARD,

RED, NO; WHITE, GRAY, BROWN, BLACK. SIDE-WHISKERS, YES, NO; WHITE,

RED, BROWN, BLACK. SIZE, LARGE, MEDIUM, SMALL. FORM, STOUT, MEDIUM, SLENDER. EYES, LIGHT, DARK, HAZEL, BROWN, BLACK. EARS

PIERCED, YES, NO. SPECIAL MARKS, SCARS, ETC.

SIGNATURE

ISSUED ... 1887

Registered in Office of the State Board of Health at Jacksonville, Florida.

Drew 71896

Dr. Joseph Y. Porter instituted a passcard system to minimize disruption of trade.

intermitting fever" in the year 1766 by leaving the settlement "at the mouth of the river Scambia" before nightfall. Judge Brackenridge[30] describing yellow fever at Pensacola notes, "but the removal of a mite to the neighboring hills, or Galvez Springs was found to afford perfect security." Indeed, it became a health custom for people of means to leave the coast and go to the mountains of North Carolina, Tennessee, and similar areas for the summer months.

Another measure widely used was the cleaning up of filth, refuse and offal which had accumulated in the town. Thus streets were swept, gutters cleaned, ponds drained and privy sinks covered with lime. People were cautioned not to pull up weeds, cut down trees or turn the earth for it was felt that the summer sun acting on the newly exposed earth was a source of the miasma which produced the fevers.

In 1821, the St. Augustine Board of Health recommended, "to the Heads of Families within this City, as a matter of Precaution, that fires be kept in their House and that the Rooms of the sick particularly be fumigated with vinegar, sugar or tar."[31] Later in hospitals disinfectant such as ozone (made by floating a small piece of phosphorous on a cork in a bottle with a narrow opening), iodine, iodoform, chlorine and sulfurous acid gas (made by burning sulfur) were used.

As early as 1882, fumigation of the mails was carried out by placing letters and packages on wire trays in a small enclosure and burning sulfur until they were thoroughly saturated with the smell of sulfur dioxide.[32] Later (1888) the envelopes and letters were perforated to permit the sulfur fumes access to the letter. Dr. Webster Merritt[33] gives an amusing quote from a General F. E. Spinner, one time Secretary of the Treasury, who lived at Pablo Beach (now Jacksonville Beach) and who was annoyed at the results of the fumigation: "Your very kind, and highly interesting letters of the 12th and 15th instant, came here on the evening before last, punched as full of holes as is your Donax sieve, and smelling of hellfire and brimstone.

"We associate with all kinds of people who go up to the City every day, we buy our supplies that come from the City daily, and we received and read two daily Jacksonville Newpapers. None of all of these are either punched full of holes nor have they fumes of fire and sulfur blown through them. And yet, now after twelve weeks of yellow fever in the City, we here are all free from it.

"But, now, let a clean letter come here from the pure air of the Green Mountains of Vermont, and the cursed fools at the fumigating station seize it, punch it so that it is almost illegible, and then pump an unbearable stink into it.

"If the fool killer has got through with killing democrats in Vermont, I wish you would send him to Jacksonville—he is sadly needed there. . ."

On the streets of towns and cities commonly piles of fat pine or barrels of sulfur or tar were burned at intersections. During the epidemic of 1882 at Pensacola, Hargis tells us: "Scores of barrels of sulphur and tar were burned, almost to a suffocating degree, in every street, alley and vacant space of the infected districts. . ."[34] These measures conducted in the still, sultry, summer atmosphere often led to a pall of smoke over the city by day and an eerie glow by night.

A measure that gained much publicity was the concussion theory for control of epidemics. According to this theory the firing of cannon set up waves of air which rushing together caught and hammered the germ of yellow fever until it died. It was recommended that this be done at night "when the air was humid and rarefied." This was tried in New Orleans as early as 1853.[28] It was also tried in Jacksonville in November, 1877, and again in August, 1888. One evening in 1888, as the artillerymen were about to fire a cannon, a Negro came walking down the street and failed to see the cannon until within 30 feet of it and just as the fire was touched to it. The explosion threw a cloud of sand in his face which he mistook for yellow fever germs and was heard to exclaim, "Great Lord, how thick they falls!"[35]

During the 1888 pandemic, Mr. Thomas A. Edison suggested saturating the ground around an infected house or block of houses with a five percent solution of caustic soda. This, he felt, would destroy every living thing and prevent the



. . . huge fires of pine and tar were kindled in various portions of the city to purify the air. This photo from Photographic Archives, Strozier Library, Florida State University.

yellow fever germs from passing along the ground as some people thought they spread.

Methods of disinfecting ships are well illustrated by the report of the captain of the bark, U.S.S. Roebuck, which had suffered a severe outbreak of yellow fever following a visit to Key West. At one time only five men and one officer were well enough to stand watch. On September 28, 1864, the captain reported: "All the clothing of the officers and men that died has been destroyed. Everything in the way of disinfectants has been used that could be. Copperas (ferrous sulfate) dissolved in water has been turned down the pumps, peak and run, and the vessel smoked throughout every morning with red hot bolt dipped in tar. Vessels containing chloride of lime and others of copperas have been plentifully distributed about the ship."[36]

The therapy of yellow fever in the late 18th century was relatively mild, then came a period of heroic therapy, and toward the end of the 19th century, a swing back to simple remedies. Romans (1775)[15] recommends a well ventilated room, avoidance of direct sunshine, a cooling diet, avoidance of "salts, spices, spiritous liquors or generous wines," a gentle purge, avoidance of motion, and "bleeding (especially if the disease makes a violent attack, and the patient is of plethoric habit) is indispensably necessary." If these measures were helpful, follow with emetics, if not apply blisters, use laudanum, and if the fever becomes excessive, give sal nitri liquors. As the fever abates, give orange, lime, or lemon juice saturated with salt of wormwood (Artemisia absinthium; used widely for fevers before the advent of cinchona bark—i.e., quinine).

During the mid-19th century it became popular to give large doses of quinine in fevers. This practice seems to have begun with Dr. James Metcalf of Natchez, Mississippi, about 1820.[37] Initially, according to T. M. Palmer, "Quinine was almost entirely unknown, and the old fashioned dose of bark and wine* was used."

About 1820 two Parisian chemists isolated quinine from the cinchona bark but it was many years before it was available in Florida in significant quantities. Some of the bolder proponents of the liberal use of quinine, such as the Seminole War surgeon, R. S. Holmes, administered up to 80 grains of quinine upon confirming the diagnosis of yellow fever and followed with doses only slightly less vigorous.

Other therapies in vogue during the 19th century were hot mustard baths accompanied by a brisk rub down, calomel in 5 to 15 grain doses, saline cathartics, painting the loins with tincture of iodine to stimulate urine flow, wet and dry cupping over the lumbar region, generous phlebotomies, sponging the body with whiskey, quinine and water, infusions of orange leaves or mint tea and infusions of powdered watermelon seeds combined with "spiritus aetheris nitrosi" (Potassium nitrate in alcohol). During the pandemic of 1888, the homeopathic physicians of Jacksonville claimed a much lower mortality for their tiny doses of medicines than was being achieved by the allopathic physicians who used more heroic doses; 2.6% as contrasted to 9.2%.[38]

*Possibly cinchona bark, confection of opium, lemon juice and port wine.

Epidemic at Jacksonville

On July 28, 1888, R. D. McCormick, a visitor from Tampa staying at the Grand Union Hotel in Jacksonville, was taken sick with fever of 104° which was followed by drenching sweats, headache, backache, leg pains, prostration, flushing of the face, injection of the eyes, and in a few hours, the appearance of jaundice. He was moved to the Sand Hill Hospital and after due consultation, a diagnosis of yellow fever was established. The Duval County Board of Health assured the people that this was a sporadic case and no cause for alarm. However, on August 8th four more cases appeared. Fear began to spread throughout the city and on August 9th this was heightened by the discovery of five more cases. While the Board of Health deliberated on what should be done, the panic grew among the citizenry who were no strangers to the horror of this disease; "Several hundred people left the city that day." Finally, on August 10th the Board of Health announced that, "yellow fever is prevalent in the city, and is tending to assume an epidemic form."

The Board of Health ordered an immediate all out effort to clean the city of refuse, trash, garbage, decaying buildings, stagnant pools of water, and improperly kept privies. Streets were cleaned, shelled or sawdusted, guttered, and drained. Orders were to "disturb the earth as little as possible. Let the weeds and grass remain growing, as it is considered unsafe to expose the earth which has been shaded by luxuriant vegetation at this season of the year."[35] Water closets, privies, cesspools, and garbage dumps were to be cleaned and when the material could not be burned it was to be covered liberally with lime or copperas. Water closets built over the creeks or swamp edges were to be removed.

The Mayflower house, a dilapidated structure at the corner of Forsyth and Ocean streets which was thought a focal point of contagion, was quickly condemned and burned in response to public clamor. Streetcars were fumigated daily, houses of yellow fever patients were quarantined by hanging a yellow flag (the "yellow jack") on the door, a watchman was stationed at each of these houses to keep the occupants in and all other persons out, and nurses caring for yellow fever patients were not allowed to leave the house —meals were carried to them daily in wagons. Whitewash containing bichloride of mercury was applied liberally to every tree trunk, post, fire hydrant, curbstone, and even to the edges of the sidewalks. "On the advice of a number of physicians and others, huge fires of pine and tar were kindled in various portions of the city to purify the air."[35] As previously mentioned, early in the epidemic on three occasions, cannons were fired in the streets—up to 200 rounds in a single night. Sickness among the cannoneers and complaints of the citizens about the unbearable noise led to the abandonment of this modality. A station in two railway cars at La Villa Junction near Waycross, Georgia, was opened for the fumigation of mail, express matters, and baggage leaving Jacksonville.

By August 13th, every outgoing train and ship was loaded to capacity with panic-stricken refugees. All roads leading from the city were jammed from daylight until far into the night with carriages, wagons, and people on foot, all seeking escape from the pestilence.

Almost with the announcement of yellow fever in Jacksonville, cities in the state (Fernandina, Tallahassee, Palatka, St. Augustine) and in neighboring states (Savannah, Charleston, Mobile, Waycross, Thomasville, Brunswick, Montgomery, Wilmington) closed their gates to the refugees. At first Macon invited refugees, but the following day she reconsidered and shut her door also. In Florida one of the few towns to welcome refugees was Monticello.

Under the auspices of the U. S. Marine Hospital Service, a refugee camp was hastily constructed at Boulogne, Florida, 36 miles from Jacksonville along the railway route. This camp, later known as Camp Perry in honor of Governor E. A. Perry, became the detention camp for those who wished to leave Jacksonville. However, even these measures could not quell the fear of those within the city or those in other towns not yet infected. Thus the people of Waycross threatened, "to tear up the rails on the track if any refugees were allowed to pass out of this city (Jacksonville) via Waycross, even in locked cars and passing that town at a high rate of speed."[35] Conferences were held with the Surgeon General and representatives of the Boards of Health of Clay, St. Johns, Putnam, Volusia, Orange, Polk, Lake, Marion, and Osceola counties in an effort to relax the stringent quarantine which now extended to machinery, wagon wheels, railroad iron, grate bars, silver dollars, and ice. All was to no avail; panic reigned.

Within the city new cases were reported daily and the death toll continued to mount. The weather was hot, damp, and heavy and "the exhalations arising from the moist ground could be seen like a thin mist." This, indeed, was the ideal weather to propagate an infection for as had been generally known for more than 200 years, "sultry hot weather fills the air with vermin, and nourishes innumerable numbers and kinds of venemous creatures, which breed in our food, in the plants, and even in our bodies, by the very stench of which, infection may be propagated; also, that heat in the air, or heat of weather, as we ordinarily call it, makes bodies relax and faint, exhausts the spirits, opens the pores, and makes us more apt to receive infection or any evil influence, be it from noxious, pestilential vapours or any other thing in the air. . ."[39]

Commerce within the city was rapidly strangled by the loss of people who had fled, the quarantine which allowed almost nothing to enter or leave, and the mounting numbers of sick. Along Bay Street many of the business houses were shuttered and crowds of hungry, destitute, unemployed milled about. There were rumors of riots and looting. With funds supplied by the federal government, the Auxiliary Sanitary Association, an organization of leading citizens, put



. . . a refuge camp was hastily constructed at Boulogne.

all the unemployed heads of families to work cleaning up the city. As most of the grocery stores and restaurants had closed, "soup kitchens" were opened and ration tickets issued.

Planning to depopulate the city, a census was taken on September 6th showing 13,757 people left in the city of which 9,812 were Negroes. Of the remaining people, 10,375 refused to leave the city under any circumstance. At this time there were two refugee camps functioning: Camp Perry, previously mentioned, and Camp Howard in North Jacksonville. About the first of October Camp Mitchell (named in honor of Dr. Neal Mitchell, President of the Board of Health) was opened seven miles west of the city. Many Jacksonville residents would leave the city before sundown, camp in the woods at night, and return to the city after sunup the next day. This had long been advocated as a way to avoid the yellow jack.

At the beginning of the epidemic the Board of Health and the Auxiliary Sanitary Association decided on a policy of depopulation of the city. On September 2nd clearance was obtained for a trainload of refugees to go to Atlanta. On the same day a five coach train carrying 38 passengers (more would have gone but the notice was short and a full fare of $12.30 per person was charged) left via the Florida & Western Railway and the East Tennessee, Virginia, and Georgia Railway. The following day the Atlanta Board of Health expressed its displeasure and Atlanta shut its doors. Still a day later the health authorities of Tennessee, Alabama, and Georgia adopted a harder line against would be refugees.

Despite the tightening of the quarantine cordon about Jacksonville there were still places which kept the latchstring out. One of these was Hendersonville, North Carolina. On September 11th a refugee train left Jacksonville, stopped at Camp Perry to pick up some 30 passengers, then struck out for Hendersonville. The coaches, crowded with 291 people, were hot and as the trip progressed they became dirty and littered. Several accidents along the way delayed the trip, and water and food supplies ran out. Some of the towns generously supplied what food they could get together on short notice but others tried to profit from the refugees' distress, charging exorbitant amounts. During the first 24 hours of travel, two cases of yellow fever appeared among the refugees and during the second day, three more cases. This touched off new panic and one car quarantined against the next. It was difficult to provide care for the sick because of the fear that reigned. After a trying trip, the refugees arrived in Hendersonville at two in the morning of September 13th. A gala welcome met them with bon fires, hot food and drink, and wagons and carriages to take the sick to the local hospital and the remainder to homes where they were provided for "at very reasonable rates." Although all had pledged to remain in Hendersonville, the panic aroused by the cases among them caused a number to quietly slip away soon after their arrival. Because of the unfortunate experience of this group, Past Assistant Surgeon John Guiteras, of the Marine Hospital Service who had accompanied the refugees, advised against further such refugee trains.



Many Jacksonville residents camped in the woods at night.

Initially, patients with the fever were taken to the Sand Hills Hospital but this was relatively far out and inaccessible. Despite the objections of many citizens, on August 21st the Board of Health took over St. Luke's Hospital. Attempts to isolate patients in their homes early in the epidemic proved impracticable. Although guards were placed at the infected homes, the residents would bribe or elude the guards and roam at will about the city. Nurses assigned in such homes would not remain in the houses. Most of the nurses served faithfully and skillfully but there were instances where it was said that patients died because of the neglect, callousness, carelessness, and even drunkenness of some of the nurses.

Distressing events were the daily fare. On August 25th William Craugh was found lying prone in the middle of Forsyth Street, feverish, jaundiced, delirious, and his clothes smeared with the fatal black vomit. He had been taken sick several days before, had avoided doctors, but when he became worse, he set out to seek help. He was taken to St. Luke's where he died the following day. A compositor on the force of the

Metropolis, on his way to work early on September 4th, met a small boy who sobbed that his mother was dead and he and his sister were hungry. He followed the boy to his home, 120 East Forsyth Street, where he found the mother, Julia Storck, sprawled across her bed and apparently dead about 24 hours. The boy's father was found in another room breathing his last.

The steadily rising number of sick within the city now taxed the most strenuous efforts of the local physicians and nurses. An appeal was made for acclimated physicians and nurses from elsewhere. In all, 18 physicians and 637 nurses answered the call. The Red Cross sent in a contingent of nurses and one state, South Carolina, paid the salaries and transportation for the nurses it sent.

Among the very first to respond to the call for help was Dr. Joseph Yates Porter of Key West. A man of boundless energy, superb tact, and proven administrative ability, Porter was a noted student of the disease and had personal experience with yellow fever at Ft. Jefferson, Key West and Tampa. From the moment of his arrival he was made Surgeon in Charge of Government Relief Measures. He was supplied with a driver, a carriage, and two of the fastest horses obtainable. During the next four months he was a familiar figure dashing about the city at all hours of the day and night. His pay for four months of devoted effort: a beautiful gold repeating watch and the eternal gratitude of the people of Jacksonville.

The peak of the epidemic was reached on September 18th with 156 new cases and 20 deaths. At this time the soup kitchens were feeding about half of the city's population. So many were the funerals that the road to the cemetery had to be hurriedly resurfaced to make it passable. The disease claimed the lives of several of the city's most prominent people, such as Colonel J. J. Daniel, the President of the Auxiliary Sanitary Association, and Edward Martin, Editor of the Florida Times Union.

Reports of cases of yellow fever at Greenland, McClenny, Gainesville, Glen St. Mary, Fernandina, Sanderson, Bayard, Green Cove Springs, and Enterprise came in. To these places the Marine Hospital Service dispatched physicians, nurses, and medicines. In some instances, when need was established, the Jacksonville Auxiliary Sanitary Association dispatched money and supplies.

In early October the fever broke out particularly severely in South Jacksonville. The logistic



Dr. Joseph Yates Porter, among the first to respond to the call for help.

problems became so great the Auxiliary Sanitary Association hired men with rowboats to ferry supplies across the river. Many of the residents removed to Sweetwater or took to the woods at night. Within the city the fever began to wane but there were still many in convalescence and scarcely able to care for themselves. For example, the central relief restaurant fed 9,398 people on October 11th.

As the need for their services decreased, the volunteer physicians and nurses resigned, spent their ten days detention at Camp Perry or one of the other camps, and began their journey home. New Orleans refused to honor the detention of her nurses in Florida and made them undergo a second detention at the mouth of the Mississippi River. Further planned expansion of Camp Mitchell was abandoned, Camp Howard and the Sand Hills Hospital were closed and plans were announced for disinfecting the city. Mattresses, pillows, quilts and other bedclothes from infected houses were burned; rugs and heavier goods were thoroughly baked; woolen goods and cotton goods were boiled. Refuse was removed and sewers were fumigated with burning sulfur.

"Monday (November 26th) was a day long to be remembered by Jacksonville for its bright and cheering record. Not a single new case of yellow fever was reported during the previous day. . . . The announcement in the morning that frost had come was one of the first cheerful announcements that had been made since Au-

gust."[35] On December 4th two Clyde Line Steamships were "cleared" at Mayport bringing in "fair cargoes of merchandise." On December 10th refugees were allowed to return to the city, provided that they camped in the woods at night. On December 12th the first train since August 8th on the Jacksonville, Tampa and Key West Railway chugged into the city. Three days later all travel restrictions were removed and refugees poured into the city on foot, in wagons, and by boat or rail. Shutters were lifted on the shops and the reunions of families and friends gave the streets a gay and festive air long absent.

During the four months of the yellow jack in Jacksonville there had been approximately 4,696 cases with 430 deaths. Six of Jacksonville's physicians had fallen victims of the disease. The city had been isolated for four months and all business had come to a standstill.

However, all was not on the debit side of the ledger for this catastrophe jogged complacent legislators into action on the matter of a State Board of Health. 1888 was an election year and the candidates stumping the state became keenly aware of the problems of individual county quarantines. At county lines they were often met by men with shotguns who demanded yellow fever passes and often refused them entry. This so impressed the winning gubernatorial candidate, Francis P. Fleming, that one of his first official acts was to convene a special session of the legislature on February 5, 1889, to obtain passage of an act and an appropriation establishing the State Board of Health as had been provided for in the constitution of 1885. The act read: "This board shall have general supervision of the public health of the State of Florida, and shall have power to make, promulgate, and enforce such rules and regulations as may be necessary for the preservation of the same;. . ."[25] Three discreet citizens to make up the board were appointed without delay, and they in turn employed Dr. Joseph Y. Porter as the first State Health Officer. Ten quarantine, fumigation and inspection stations were quickly established at strategic points and a small steamer was purchased to patrol the many miles of Florida coast to prevent the smuggling of aliens who might bring yellow fever. In the following several years the legislature abolished the autonomous county boards of health, the last one being the Escambia Board of Health in 1897.

Pieces of the Puzzle

After the pandemic of 1888 Florida gained a respite until 1899 except for mild outbreaks at Key West in 1892 and 1897. In 1889 the yellow jack returned with a vengeance in Key West and Miami. Again a rigid quarantine and passcard system was established and cases were taken to isolation hospitals but the epidemic ran "its usual ninety days."

In 1900 the United States appointed a Yellow Fever Commission "for the purpose of pursuing scientific investigations with reference to the acute infectious diseases prevalent on the Island of Cuba." In particular, the goal was to eradicate yellow fever which had created havoc among the soldiers of the Spanish American War. Constituting this commission were: Walter Reed, M.D., Surgeon, U.S.A., James Carroll, M.D., Aristides Agramonte, M.D., and Jesse Lazear, M.D., Acting Assistant Surgeons, U.S.A. Fortified by the extensive knowledge of Carlos Juan Finlay and the observation of Henry Carter Rose that two or three weeks must elapse between the arrival of a case of yellow fever in a noninfected area and the appearance of secondary cases, they designed experiments that proved unequivocally the mosquito transmission of yellow fever. They also identified the Stegomyia fasciatus mosquito as the carrier. Their first official announcement, October 27, 1900, states: "The mosquito serves as the intermediate host for the parasite of yellow fever, and it is highly probable that the disease is only propagated through the bite of this insect."[40]

Now the pieces of the puzzle began to fit in place. It was a disease of seaports because it was imported by ships from endemic areas. It was an urban disease because the mosquito carrier prefers an urban habitat. It was acquired at night because the carrier is a night-biting mosquito. Protection was afforded by leaving the city before sundown and returning after sunup for the same reason. It could persist throughout the winter in Florida just as it did in Cuba because the weather did not dip to freezing and kill off the mosquitoes. Finally, the explanation of Finlay's failure to unequivocally transmit yellow fever with mosquitoes became evident. Not knowing of the nine to 12 day period that the yellow fever virus must incubate within the host mosquito, he had fed his presumably infected mosquitoes on nonimmunes too soon after they had dined on yellow fever victims.

The last incursion of the yellow jack in Florida occurred in 1905. A trainload of Italian excursionists went from Pensacola to New Orleans in the fall of that year. Unknown to health authori-

ties in Florida, yellow fever was then epidemic in New Orleans. Several of the excursionists on their return to Pensacola were sick but instead of immediately seeking medical help, they dispersed throughout the city. Within a short time cases of yellow fever appeared in various parts of the city and ultimately there were 572 cases with 82 deaths. This time the public health strategy was vastly different. The State Health Officer with his local staff rapidly isolated cases under mosquito nets and screens. The city was combed by teams eradicating mosquito breeding places and sick rooms were fumigated with pyrethrum powders. For the first time in the history of Florida a yellow fever epidemic was quashed before the appearance of the frost. One case slipped past authorities and made his way to Tampa, but astute sleuthing by the Tampa health officers uncovered him, isolated him in a well screened enclosure, and not another case appeared. The general populace, conditioned by a century and more of yellow fever horror, panicked as usual and communities established rigid and often pointless quarantines, but it was soon evident that the health authorities had the epidemic under control and the panic abated.

The history of yellow fever in Florida: outbreaks almost every two years for almost a century and a half; six fearful pandemics culminating in the great pandemic of 1888; during 141 years well over 25,000 cases with more than 5,000 deaths; retardation of Florida's growth; and untold economic damage. The silver lining in the black cloud: the founding of the Florida State Board of Health.

Calendar of Yellow Fever in Florida*

Year	Location	Ref.	Dates	Population	# Cases	# Deaths	% Mortality
1764**	West Florida	(11)	—	—	—	—	—
1765***	Pensacola	(29)	—	—	—	131	—
1807	St. Augustine	(27)	—	—	—	—	—
1810	Pensacola	(41)	—	—	—	—	—
1811	Pensacola	(42)	—	—	—	****	—
1821	St. Augustine	(4)	Sept. 10-Dec. 8	—	—	172	—
1822	Pensacola	(42)	Aug. 12-Oct. 10	1300	—	257	—
	Ft. Barrancas	(9)	—	—	—	7	—
	St. Marks	(9)	Aug.-?	—	68	5	7.3
1823	Key West	(5)	June-Oct. 25	140	59	—	—
1824	Key West	(43)	—	—	—	—	—
1825	Pensacola	(44)	—	—	—	—	—
1826	Apalachicola Bay	(45)	—	—	—	—	—

*In this table is listed every mention of yellow fever in Florida that the author has been able to discover; in each instance the principal reference is cited. Occasionally more than one reference is cited and once statistics from two different refereuces are cited as they differ widely. In many instances the statistics are incomplete and occasionally the statistics listed are a composite from more than one source. In most instances the dates and statistics must be considered approximations. Occasionally the span of the outbreak includes the winter months as well as summer and fall. For reasons of time and inaccessibility the author was not able to thoroughly search all extant microfilm newspapers; if such were done, it is thought the basic data herein recorded would not be significantly altered.

**Harrell quotes Governor George Johnstone of British West Florida, and although he specifically mentions only Mobile, he implies that yellow fever was present throughout British West Florida which included Pensacola.

***Harrell quotes Governor Johnstone, "Above ¼ of the soldiers, and 1/5 of the inhabitants" had yellow fever.

****Drake states: "The fever then broke out, and was fatal to nearly all the Anglo-American population; affecting in a milder way many of the Spaniards."

Year	Location	Ref.	Dates	Population	# Cases	# Deaths	% Mortality
1827	Pensacola	(46)	June 16-? Sept.	—	65	18	27.7
1828	Pensacola	(42)	—	—	50-60	—	—
1829	Key West	(47)*	—	350	—	26	—
1831	Pensacola	(42)	Aug. 6- ?	—	15+	—	—
1834	Pensacola						
	Town	(48)	Aug. 15- ?	1,500	—	33	—
	Navy-Yard	(42)	Aug. 23- ?	—	78	—	—
1836	Key West	(49)	July-Aug.	800	12	?11	—
	Pensacola**	(50)	—	—	80	9	8.9
	Suwanee	(51)	Aug.-Sept.	—	—	—	—
	Tallahassee	(52)	—	—	—	—	—
1838	Tampa-Ft. Brooke	(49)	—	—	49	19	39.7
1839	St. Augustine	(53)	Mid-Sept. -?	—	850	39	21.8
	Pensacola	(54)	Mid-Sept.- ?	—	146	6	4.1
	Key West	(55)	—	—	—	***	—
	St. Joseph	(56)	—	—	—	—	—
	St. Marks	(56)	—	—	—	—	—
	Tallahassee	(56)	—	—	—	—	—
	Tampa	(57)	—	—	—	—	—
1841	St. Joseph	(58)	June-Sept.	—	—	37+	—
	Port Leon	(49)	July-Oct.	450	—	139	—
	St. Marks	(49)	—	100	—	—	—
	Apalachicola	(49)	July- ?	2,000	200	—	—

*The article by Dupré may be fraudulent; see letter of T. A. Pinckney.[60]
**Reports only the experience of Dr. Isaac Hulse who was at the Naval Hospital.
***Population of Key West "almost entirely wiped out."

Year	Location	Ref.	Dates	Population	# Cases	# Deaths	% Mortality
1841	Tallahassee	(49)	—	800	—	60-80	—
	St. Augustine-Ft. Marion	(59)	Oct. 3-Nov. 15	—	56	25	44.7
	Pensacola	(54)	Aug. 31-Nov. 5	—	156	13	8.9
	Key West	(60)	June 22- ?	450	—	—	—
1842	Key West	(49)	July- ?	1,000	65	48	73.6
	Pensacola	(61)	Sept.- ?	160	145	10	6.9
1843	Pensacola	(107)	—	—	—	—	—
1844	Pensacola	(107)	—	—	—	—	—
1845	Pensacola	(107)	—	—	—	—	—
1846	Pensacola	(107)	—	—	—	—	—
1847	Pensacola	(107)	—	—	—	—	—
1849	Tampa-Ft. Brooke	(59)	Sept.- ?	—	3	3	100
1852	Ft. Meade	(59)	Fall	—	44	21	47.6
	Pensacola	(62)	—	—	—	—	—
1853	Newport	(49)	Aug. 10- ?	400	150	52	34.6
	St. Marks	(63)	—	—	—	—	—
	Tallahassee	(49)	—	—	Several	—	—
	Tampa	(59)	Summer	—	15	9	60
	Key West	(49)	July-Sept.	2,500	30	12	40
		(64)	Oct.-Dec.	—	100	3	3
	Pensacola	(9)	July-Oct. 10	1,200	—	260	—
1854	Key West	(59)	Summer-Fall	3,000	299	112	37.5
	St. Mary's	(65)	Fall	—	—	*	—
	Pensacola**	(66)	—	—	—	—	—
1855	Milton	(107)	—	—	—	—	—
1856	Key West	(49)	July-Aug.	2,500	12	3	25
1857	Jacksonville	(33)	Aug.-Nov. 20	—	600	127	18.8
	Key West	(67)	Sept. 6- ?	—	—	—	—
1858	Tampa	(49)	—	—	275	30	10.8
	Key West	(49)	July-Aug.	2,600	40	12	27.5
	Pensacola Navy-Yard	(68)	Sept.-Nov.	—	28	7	25

*Ley states: "It was estimated that 1/5 of the white people who remained in the town died . . . the epidemic lasted three months."

**Hargis states that there was yellow fever aboard the ships in the harbor at Pensacola which did not spread to persons ashore in the years: 1854, 1858, 1871 and 1872.

Year	Location	Ref.	Dates	Population	# Cases	# Deaths	% Mortality
1861	Key West	(64)	July-Aug.	—	—	"great many"	—
1862	Key West	(69)	July 1862-May 1863	—	212	36	16.9
	Tortugas	(27)	Fall	—	11	4	36.4
1863	Pensacola						
	Civilian	(49)	Aug.- ?	8,000	700	380	54.3
	Military	(70)	—	—	29	15	51.6
1864	Key West						
	Civilian	(49)	July-Aug.	8,000	1,000	400	40
	Military	(71)	Apr. 23-Fall	1,550	420+	128	28.1
1865	Key West	(107)	—	—	—	—	—
1866	Key West	(49)	July-Aug.	8,000	Few	6	—
1867	Key West	(72)	Aug. 22-Oct.	—	17	2	11.8
	Tortugas*	(73)	Aug. 19-Nov. 14	—	270	38	14.1
	Tampa	(49)	—	—	50-60	12	20
	Manatee	(49)	Aug.- ?	—	12-20	—	—
	Pensacola Navy-Yard	(74)	July- ?	426	161	34	21.1
	Warrington-Woolsey	(74)	—	—	—	24	—
	Tallahassee	(75)	July-Sept.	—	233	27	11.6
1869	Key West	(64)	June 18-Aug. 13	—	—	29	—
1870	Key West	(76)	—	—	—	—	—
1871	Cedar Keys	(49)	Aug.-Sept.	225	162	11	6.8
	Tampa	(77)	—	—	40+	10+	25
	Gainesville	(78)	Sept. 21-Dec. 16	—	—	50	—
1873	Pensacola	(79)	Aug. 3-Oct. 15	—	600	62	10.3
	Ft. Barancas	(9)	Sept. 26-Nov. 12	—	12	3	25
	Tortugas	(80)	Aug. 23- ?	60	39	14	22.8
	Key West	(49)	—	—	3	—	—
	Miami	(49)	Summer	—	9	2	22.2

*In this epidemic Dr. Samuel Mudd took charge when released from chains.

Year	Location	Ref.	Dates	Population	# Cases	# Deaths	% Mortality
1874	Pensacola	(81)	May 29-Dec. 10	—	276	65	23.6
	Warrington-Woolsey	(70)	—	4,000	—	27	—
	Pensacola Navy-Yard	(70)	—	158	64	22	34.4
	Key West U.S.S. Ticonderoga	(82)	—	—	9	3	33.3
1875	Pensacola Harbor	(83)	June 27-July 15	—	10	3	30
	Ft. Barrancas	(83)	July 18-Aug. 26	—	78	31	39.7
	Key West	(84)	Mar. 19-Sept.	—	312	37	11.8
1877	Fernandina	(85)	Aug.-Nov.	3,000	1,612	95	5.9
	Jacksonville	(86)	Sept.-Dec. 1	—	150	—	—
	St. Augustine	(9)	Nov. 9- ?	—	250	50	20
1878	Key West	(87)	June 29-Oct. 13	14,000	33	17	51.5
1880	Key West	(88)	July 16-Oct. 15	14,000	160	6	3.7
1881	Pensacola Ship Payzant	(89)	July	—	7	—	—
	Key West	(90)	Sept.	—	—	—	—
1882	Pensacola	(91)	Aug. 5-Nov. 23	—	2,350	197	8.4
1883	Pensacola Navy-Yard	(92)	Aug. 5- ?	—	261	34	13.0
	Pensacola	(92)	Aug. 22-Sept. 27	—	40-50	10-12	24
	Warrenton	(93)	Aug. 14- ?	—	89	36	40.4
	Millview	(94)	Sept. 8-Oct. 14	300	70	12	17.1
	Myrtle Grove	(94)	—	—	18	13	72.1
	Tampa	(95)	July	—	—	9	—
1884	Key West	(76)	—	—	—	—	—
1887	Key West	(96)	May 21-Sept. 21	—	282	63	22.3
	Manatee	(97)	Sept.-Nov. 23	—	—	—	—
	Egmont Key	(98)	July- ?	—	"Few"	1	—
	Tampa	(98)	Sept.-Dec. 19	—	c 1000	c 100	10
	Lakeland	(99)	Fall	—	—	—	—
	Palatka	(99)	Fall	—	—	—	—
	Sanford	(99)	Fall	—	100-150	6	4
1888	Plant City	(98)	Oct.7, 1887-Aug. 21, 1888	300	159	16	10.1
	Manatee*	(98)	Oct. 6, 1887-Sept. 1, 1888	400	60+	8	13.3
	Tampa	(98)	Aug. 7-Dec.	—	300	10	3.3
	Bradenton	(98)	—	100	—	0	—
	Palmetto	(98)	Aug.-Nov. 24	200	80-100	8-10	10
	Jacksonville	(35)	Aug. 10-Dec. 5	13,757	4,696	430	9.2
1888	Macclenny	(100)	Aug.-Nov.	500+	338	23	6.2
	Fernandina	(101 & 50)	Aug. 22-Oct. 23	3,000+	1,200	38	3.2
	Gainesville	(102 & 50)	Sept. 11-Nov. 28	—	100	12	12
	Live Oak	(25 & 35)	Fall	—	5	1	20
	Enterprise	(35)	—	—	29	5	17.2
	Sanderson	(35)	Sept. 27- ?	150+	13+	2	15.4
	Green Cove Springs	(35)	—	—	15	0	—
	Glen St. Mary	(35)	—	—	4	1	25
	Greenland	(35)	—	—	—	—	—
	Callahan	(35)	—	—	—	—	—
	Bayard	(35)	—	—	—	—	—
1892	Key West	(76)	—	—	—	—	—
1897	Key West**	(76)	—	—	—	—	—
	Pensacola	(25)	—	—	1	0	—
	Ft. Barrancas	(25)	—	—	"Several"	—	—
	Flomaton	(25)	—	—	"Several"	—	—
1899	Key West	(25)	Aug. 31-Nov. 30	—	1,320	68	5.1
	Miami	(25)	Sept. 22-Dec. 22	—	220	14	6.4
1905	Pensacola	(103)					
		(104)	Aug. 28-Nov. 26	29,550	480	68	14
		(105)	—	—	572	82	13.4
	Tampa	(106)	July 22	—	1	0	—

*Note: Covers 11 months including period noted under 1887.
**Rerick states there was no yellow fever in Key West in 1897.

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As part of this presentation of the historical aspects of yellow fever, it seems appropriate to ask the following questions: What has been learned of yellow fever since Walter Reed? Is yellow fever a menace to Florida today? What methods of control are available today? In the following article Dr. William L. Pond of the University of Miami School of Medicine, Department of Epidemiology and Public Health, addresses himself to these questions.

This is Yellow Fever

WILLIAM L. POND, PH.D.

The disease now known as yellow fever has been reported in various parts of the world since its description in the 17th century in Yucatan.[1, 2] Its true nature was recognized following the brilliant medical studies carried out in the last two decades of the 19th century and the first decade of the present century and the careful painstaking and dangerous investigations that shortly ensued. The disease is now recognized as being caused by a virus, considered to be a group B anthropod-borne virus, known officially as "arbovirus."

Yellow Fever Origins

There has been a great amount of speculation as to the actual origin of yellow fever in the world especially as to its possible origin in the Eastern or Western Hemisphere. Some of our earlier records of civilization in Middle American and Caribbean areas indicate a likely outbreak of the disease in Hispaniola near 1495 after the battle known as Vega Real or Santo Cerro fought by Columbus in Hispaniola against the Indians. Many of the subsequent expeditions (of Ovando, Niceuza, Hojeda and others) ended as dreadful disasters. Since that time of early recognition of the disease, it has occurred throughout vast areas of the Western Hemisphere especially in the areas of Mexico, Yucatan, Santo Domingo, the Island of Guadeloupe, Cuba, Barbados, Santa Lucia, and appeared in South America in 1658 in Pernambuco. The disease was also recognized in Cadiz and Malaga in the 16th century. It appeared in New York in 1668, in Boston in 1691, in Philadelphia in 1669, and in Charleston in 1699. There seems to be no doubt that at the end of the 17th century yellow fever was established firmly in the Western Hemisphere. Outbreaks seemed to occur each time a European expedition tried to gain access into the Caribbean area and it is thought that possibly the natives of the Caribbean countries kept the yellow fever alive by their frequent inter-island forays. From the 18th century on, however, probably because of the large military expeditions and the heightened amount of passenger travel, intensive yellow fever epidemics broke out in many parts of the world. Aside from yellow fever in Africa where the main epidemics were in Senegal and Sierra Leone, massive epidemics occurred in the 18th century in Spain, Portugal, France, the Canary Islands, Gibraltar, and then on to Southampton leaving great havoc in Dublin. In the Western Hemisphere Cuba again was brutally attacked and several large expeditions to Mexico and Peru, Martinique, and other islands of the area were virtually wiped out. The Atlantic and Gulf of Mexico regions of the United States were seriously affected. Repeated epidemics were described in Charleston, New Orleans, New York, Philadelphia, Baltimore, Mobile, Norfolk, Houston, Galveston, Pensacola, Key West, Boston, Savannah and Memphis.[1,2] The number of cases in the United States reached a figure of 120,000 out of which 20,000 were lost, not counting the enormous economic loss.

This enormous loss in the United States and the Western Hemisphere led to the creation in 1879 of the National Board of Sanitation in the United States and the First American Commission for the Study of Yellow Fever in Cuba. Studies of the commission in this and later years and especially the brilliant insight of Dr. Carlos J. Finlay began the era of present knowledge not only about this important disease but also constituted some of the more basic approaches to our current ideas on the epidemiology of infectious diseases.[3,4]

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Epidemiology

This Yellow Fever Commission established that the infectious agent was present in the blood of patients in the early stages of the disease, that the infectious agent was transmissible from person to person by the *Aedes aegypti* mosquito, and that the infectious agent was filterable through filters which held back recognized bacterial agents. Prompt eradication measures for the *A. aegypti* soon stopped the massive epidemics in Havana and in other large cities of the Western Hemisphere.[1-3] The disappearance of yellow fever from the United States and other areas of the Americas is surely due to initiation of antimosquito campaigns; however, the very large change in the epidemic picture of yellow fever in the Americas leads one to wonder as to what changes would have occurred in these sames areas if it had not been discovered that the mosquito was a vector. Was there a natural change in the epidemic nature of yellow fever in the Americas or can we assume that yellow fever was brought under control altogether by the implementation of our new knowledge?

It was discovered in Rio de Janero in 1928 that our knowledge of the epidemiology of yellow fever was far from complete.[1] Even though effective *A. aegypti* suppression had been realized in many areas, cases of yellow fever began to be observed in persons who had not been exposed to either the *A. aegypti* or to other cases in the city. It was then recognized that another cycle of yellow fever was occurring in jungle areas which was different from that in urban areas. It was discovered that monkeys of various types were very susceptible to yellow fever and moreover the blood of these monkeys was infective to mosquitoes and then transmissible to other monkeys (or to humans).[5] This cycle of yellow fever passed from monkey-to-mosquito-to-monkey was termed "jungle" or "sylvan" yellow fever whereas the yellow fever passed from man-to-mosquito-to-man is termed the "urban" type.

In the urban type of yellow fever the *A. aegypti* mosquito is involved and this particular species is altogether an urban mosquito, breeding only in areas around human habitation where reservoirs of water remain untouched and unchanged such as in old pots or jars or abandoned automobiles or other type of relatively stagnant water. The species of mosquito involved in the jungle yellow fever involves an arboreal type which inhabits the trees and leafy areas where monkeys are found. When susceptible human beings encounter these mosquitoes, which may have fed on monkeys ill with yellow fever, these persons contract yellow fever and if they are housed in areas where they can be bitten with the urban *A. aegypti* mosquito then the jungle yellow fever can be considered as urban yellow fever. It should be realized that there is no basic difference (antigenicity, pathogenicity, transmissibility, etc.) in the virus being transmitted from monkey-to-mosquito-to-monkey and the virus which may be transmitted from man-to-mosquito-to-man.

Virological Procedures

Soon after the discovery by Stokes of the transmissibility of the yellow fever virus to monkeys, the virus was found by Theiler to be transmissible also to the white mouse when inoculated by the intracerebral route.[5,6] The use of this practical laboratory animal allowed a full complement to be used of what are now current virological procedures including more practical procedures of isolation of the virus from tissues of patients and tests for various types of antibodies to yellow fever including neutralizing antibodies, complement fixing antibodies and hemagglutination inhibiting antibodies. From passage of the virus of yellow fever in this animal as well as in tissue culture and the embryonated egg, a strain of attenuated yellow fever virus was encountered which will produce immunity in human beings without causing any signs of serious disease. This attenuated strain of yellow fever virus is termed the 17D vaccine strain of yellow fever and it has been in use throughout the world for many years; another antigenic variant of yellow fever, the French neurotropic strain, has been used until recently for vaccination against yellow fever in many nations of the Eastern Hemisphere.[7]

Distribution

Although the present activities of yellow fever in the world are limited to areas in Africa and to South America, the distribution in these continents cannot be considered a stable condition since the areas of activity are predominantly of the jungle or sylvan yellow fever type and the epidemics of the disease range in areas until the susceptible monkey population is decimated or immune (one species of monkey acquires the infection without necessarily succumbing to the disease) and the distribution thus shifts from area to area. Sometimes in the recent past the epidemics of yellow fever have broken out of

what is usually considered their endemic locations in Africa and South America. The most notable was the spread of yellow fever from its northernmost area of Colombia in South America into the Republic of Panama and thus through Middle America.[8] At this time in 1948 there was considered to be no yellow fever active in the Republic of Panama at least west of the Canal itself. The first confirmed case of yellow fever west of the Canal occurred in January 1950 and subsequently the disease "marched" up through Costa Rica, Nicaragua, Honduras, Salvador, and by 1958 had swept through Guatemala and either burned itself out in Guatemala or in Mexico (although there were no cases of the disease officially reported in Mexico at the time.) As the disease moved northward through Middle America it left behind it dead or immune monkeys and human populations which had acquired some degree of immunity either from the disease itself or from the heightened activity in vaccinating the populations with the yellow fever vaccine.[8] After the moving wave of this disease, yellow fever did not exist in these countries of Middle America, nor does it exist there today north of Panama. As indicated, the populations had been left lacking in susceptibles or immune from the passage of the yellow fever wave, however, 13 years have now passed since 1958 and it is likely that Middle America is as susceptible as it was in 1948 to another wave of yellow fever through Middle America. It is likely that the wave of yellow fever was self-limiting, especially in latitudes at the center of Mexico because of the lack of monkey populations normally required for the continuing propagation of the virus wave.

Thus although yellow fever has not existed in the United States since the first decade of this century, one is always fearful of its reintroduction either from another wave or travel through Middle America or more likely from introduction via human or animal or insect population passengers into this country by way of air or sea transportation. Although there has been a vigorous *A. aegypti* eradication program in the United States, as described elsewhere in this series of articles, nevertheless this vigorous campaign is not in effect at the present time and much of the southern part of the United States is probably still classified as a yellow fever receptive zone; this is a source of some embarrassment to us because of the extensive and effective *A. aegypti* eradication programs of our neighbors to the south of the United States.

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The accompanying article by Dr. John E. Porter, Scientist Director of the United States Quarantine Station at the Miami International Airport, details past and present efforts to control the Aedes aegypti mosquito and prevent the introduction of yellow fever into Florida.

Aedes Aegypti Control and Eradication Programs in the United States

Present Status of this Mosquito

JOHN E. PORTER, PH.D. AND HARRY D. PRATT, PH.D.

Since the 1881 advocacy by Dr. Carlos Finlay in Havana, Cuba, of the principle of yellow fever transmission by *Aedes aegypti,* efforts of various types and intensities have been made to control this mosquito in North America and elsewhere. The United States Army Yellow Fever Commission definitely demonstrated in Havana in 1900 that *A. aegypti* was indeed the vector responsible for the dreaded "Yellow Jack" of the tropics and they affirmed this in part by the application of effective mosquito control measures in Cuba. The 1905 New Orleans, Louisiana, yellow fever epidemic, the last to occur in the United States, assumed potentially cataclysmic proportions but was brought under control by an effective larviciding and screening program aimed at *A. aegypti.* Again, in the early 1900's, General William C. Gorgas led in the successful completion of the Panama Canal by directing control efforts against this disease carrier.

Subsequent to the 1905 yellow fever epidemic in and around New Orleans no concerted efforts were made on a national level to either control or to attempt eradication of *A. aegypti* in the United States until the spring of 1937 when at a State and Territorial Health Officers meeting with representatives of the U. S. Public Health Service, it was recommended: "that certain steps be taken to reduce the hazards of diseases transmission in communities adjacent to airports of entry in the United States and that an effort be made to eradicate *A. aegypti* in those airport cities and maintain control over them."

Local agencies at this time did not have, nor do they now generally have, programs for the control of domestic mosquitoes such as *A. aegypti* since (with few exceptions) these are not particularly pestiferous mosquitoes to which the control and abatement districts can justifiably devote labor and expense. The Dade County, Florida (Miami) Mosquito Control Division is one exception.

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This county had a dengue outbreak in 1934 and the Division realized international travel and traffic were so important to the economy that it was necessary to keep populations of the carrier of dengue and yellow fever as low as possible and maintain a well trained mosquito control team for use in case these diseases might be introduced. Their program, although aimed primarily to control the more noxious and abundant salt marsh, pest mosquitoes, does permit, during part of the year, an opportunity to apply domestic mosquito control measures.

National Programs

On a national basis, the Malaria Control in War Areas program from 1942 through 1946 concerned itself in certain instances with *A. aegypti* control. This was followed by the Division of Foreign Quarantine's Entomology Program which established *A. aegypti* detection and control units at the major international airport and seaport cities in those parts of the United States, Puerto Rico, the Virgin Islands and Hawaii most receptive to a possible outbreak of disease should infected vector mosquitoes or diseased persons debark in these areas. In addition, the Foreign Quarantine Program and the Technical Development Laboratory of the CDC, Public Health Service, have developed effective insecticidal aerosols and other aircraft disinsecting methods to prevent the importation and propagation of disease vectors of various species. Surveillance and consultation, disinsection and training along with adherence to quarantine regulations go hand in hand in our efforts to thwart the entry of insect vectors of disease.

Other activities directed toward preventing the introduction and spread of yellow fever into the United States are being carried on at various ports of entry. These include:

Requirement of a valid yellow fever vaccination certificate of any traveler who in the preceding six days visited an area infected with yellow fever.

Inspection of monkeys and certain other primates coming from yellow fever areas, and the

requirement of immunization against disease or retention in a mosquito-proof crate or other structure for a minimum of nine days immediately before arrival in yellow fever receptive areas.

The outbreaks of dengue fever in the Caribbean in 1963-1964 brought immediate requests for control of the vector mosquito *A. aegypti*. Over 30,000 cases were reported from the epidemic which seemed centered in Puerto Rico and Jamaica. The Communicable Disease Center, in conjunction with the Puerto Rican health authorities, applied extensive insecticidal applications and took other measures to reduce adult mosquito populations while similar procedures were also utilized in Jamaica.

In 1963, therefore, the Public Health Service, Communicable Disease Center, was allotted funds to establish an *Aedes aegypti* Eradication Program to eliminate this mosquito from all of the United States, Puerto Rico, the Virgin Islands, Hawaii and certain Trust Territories in the Pacific. During this 1964-1968 period the most strenuous control and eradication efforts were made by this organization to control this carrier of dengue and yellow fever in North America.

Morlan and Tinker report findings of surveys conducted by the Communicable Disease Center in cooperation with state and local health departments from 1956 through 1962 in 440 communities of 262 counties which showed *A. aegypti* to be present in 101 counties of nine southeastern states. Additional, pre-program surveys (Schliessmann and Quarterman) reported by the Communicable Disease Center during the summers of 1963 and 1964 in 5,257 communities in 639 counties of ten southern states gave more detailed information on the extent of the *A. aegypti* populations. They revealed widespread infestations throughout Florida, southern Alabama and Georgia, and portions of Mississippi, South Carolina and Texas with up to 70% city block infestation rates for this mosquito in this area, while in Puerto Rico and the Virgin Islands heavily infested areas reported in excess of 80% infestations.

Twenty-six locations with the heaviest infestations were chosen for the initial eradication efforts when field operations were begun by the *Aedes aegypti* Eradication Program in 1964. This coverage was increased in 1965, 1966 and 1967, with significant reductions in infestations being observed in all areas, although none were declared to be free of this vector mosquito.

Regrettably all Eradication Program activities were discontinued early in 1969. Indications now are that populations of this disease carrying mosquito, in some instances, are fast approaching the densities which existed prior to the start of eradication activities. Hidden foci of *A. aegypti* reported from areas where near-control was achieved have served to reinfest these areas, while elsewhere in parts of communities untouched by eradication program activities populations of *A. aegypti* have multiplied and spread into other areas.

It is reported that this mosquito can be found without difficulty in most cities in Florida where the Eradication Program was operational, including Miami, Tampa, Fort Lauderdale and Daytona, although none has been reported from Fort Myers or Key West where eradication was almost achieved during the 1964-1968 period.

In the U. S. Virgin Islands *A. aegypti* was found in all three islands, St. Thomas, St. Croix, and St. John when the *aegypti* program was started in 1964. The Island of St. John was negative much of the time from 1966 to 1970, both by larval, adult, and ovitrap surveys. In 1970 *A. aegypti* was found in small numbers on both St. Thomas and St. Croix where the *Aedes aegypti* Eradication Program has been continued on a reduced scale by the Virgin Island Division of Environmental Health. In Puerto Rico *A. aegypti* was found in every one of the 77 municipalities at some time during the period 1964 to 1968, but great progress was made in reducing populations in the southwestern quarter of the island during the last three years of the Eradication Program, 1966 to 1968. In 1969 thousands of human cases of dengue and many infestations of *A. aegypti* were reported on the north coast of Puerto Rico where no *aegypti* eradication work had been conducted from 1966 to 1968. Only a few cases of dengue, however, were reported in 1969 on the southwestern quarter of the island where eradication was almost accomplished by 1968. In 1970 outbreaks of dengue occurred in southwestern Puerto Rico in Aguada and Guayanilla and smaller scattered cases were confirmed in Penuelas, Lajas, and San German during the last half of 1970, with dengue of the type 2 being isolated. (MMWR, *20*(9), pp. 74-75, 1971).

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Dr. Louis Sims Oppenheimer

Culture Among the Sandspurs

James M. Ingram, M.D.

Few lives offer a study of such violent contrasts as that of Louis S. Oppenheimer, often known in his time as "Dean of the Florida Profession." Repeated early failure contrasted to later success; the joys of family and of practice contrasted with frequent depression; the raw, harsh atmosphere of late 19th century West Coast Florida contrasted with his polished cultural background.

Louis Oppenheimer was born January 24, 1854, at Louisville, Kentucky, the son of devout orthodox Jewish parents who had emigrated from Germany as steerage passengers. These humble parents devoted their entire lives and their total earnings to the education of their children. At the age of six Louis began violin lessons and the study of English, German and French.

The family moved to Montgomery, Alabama, where Louis had his early formal education. In 1873 he entered the College of Medicine at the University of Louisville, graduating in 1875. After his internship at Louisville City Hospital, he took the customary grand tour of the European clinics to round out his medical training.

A meticulous, lifelong keeper of notes, the 23-year-old Louis wrote that his life in Vienna, Munich and Paris was not entirely devoted to study. His descriptions of the beer gardens, parties and ladies of Europe leave no doubt that his maturation, although delayed, occurred rapidly during this period. By the age of 24 he was able to read and speak fluently in six languages.[1]

Returning to Louisville he was appointed a Demonstrator of Histology at the College of Medicine and one year later Lecturer on Diseases of Women. Although his success as a teacher was unquestioned, he was never able to establish a private practice. He recorded, "I failed to make a living in Louisville, so after four years, moved to Seymour, Indiana, where I barely existed for another four years." Chronically depressed and sometimes contemplating suicide, he abandoned the practice of medicine. At the urging of his younger brother, Joe, he moved to Savannah. Joe was "the flower of the flock, a most lovable, idea character" who had married into one of the leading families of Savannah. On learning that Louis intended to give up the practice of medicine and was planning to become a prescription clerk in a small drug store in Savannah, this aristocratic family "turned up their noses at me, snubbed me, and humiliated me without reserve." In the face of such hostility, Louis left Savannah after two years. It was during these years that thoughts of suicide recurred frequently.

Years at Bartow

At this dismal moment in life, Oppenheimer first encountered the all-powerful forces which were to shape not only his life but that of tens of thousands of others for the next two decades—Henry B. Plant and the railroads of Florida.



Fig. 1.—Dr. Oppenheimer about 1925. This portrait was the favorite of his family.

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Plant was a canny New Englander who had modest capital, shrewd business sense and unlimited vision for the potential of development of Florida. He had acquired, for almost nothing, several small railroads in southeastern Georgia, all of which had failed following the Civil War. Meanwhile, the state of Florida had become virtually bankrupt as a result of the reckless spending of the Florida Internal Improvement Fund. In order to put public land to use and to acquire tax funds, the legislature had authorized the granting of 3,840 acres of land for every mile of railroad track built in the state. At times even larger acreage per mile was granted.[2] With his Georgia railroads as a base, Plant expanded his lines at an almost unbelievable rate into northern and western Florida. Learning from railroad officials that there were very few qualified physicians and almost no drug stores in Florida, Oppenheimer simply boarded the train and rode it to the end of the line. The southern terminus of the South Florida Railroad was the rough, raw town of Bartow. The combination of huge deposits of phosphate and availability of transportation by rail had quickly made Bartow one of the busiest towns in the state. In addition, the citrus industry was just reaching its first full production in mid-Florida.

It was here that Dr. Oppenheimer achieved his first success. He immediately established a large practice and opened the only drug store in the entire area. In his notes he described Bartow as "the County seat of Polk in South Florida in 1890 with many earmarks of a frontier town; deep sandy streets, plank sidewalks, two blocks of assorted stores, a single barroom, nestling on the corner opposite the primitive Court House, with its usual well-furnished gambling adjunct in the back room. In front of the Court House there was a row of sour orange trees. Nobody ever wanted more than a single taste of this tempting, golden fruit. However, the trees served several useful purposes; namely as hitching posts for horses, mules, and oxen; and as scratching posts for his flea-bitten majesty, the Florida Razor-back hog."[3]

For seven years Dr. Oppenheimer was one of the dominant men in Polk County. In addition to his many professional activities, he continued his interest in music and in the violin. He established the first classical music group and was instrumental in organizing the public school system. During these activities he met a young school teacher and musician, Alberta Dozier, who had come down from Macon, Georgia, to take charge of a small school near Bartow. Their courtship was short and intense but was virtually brought to a halt by the objection of their families to the mixing of religion in their marriage. Both Louis and Alberta set out to charm the members of each other's family. In a short time they were successful and were married in 1888. Fifty years later Dr. Oppenheimer recorded that, "Since that day my wife and I have never discussed any question of religious belief except in a casual manner." He describes his wife as "the ideal woman, beautiful, dignified, refined, educated, strong, intelligent."[1] Their marriage was a perfect union.

Amidst this happiness, the "big freeze" of 1895 devastated the Florida citrus crop. Great losses occurred in Bartow and other citrus areas but the nearby city of Tampa, lethargic for some 35 years, had suddenly exploded under the Midas touch of Henry B. Plant's railroad.

Tampa—the Early Years

Plant became interested in Tampa in 1881, having just bought the South Florida Railroad. He then quickly purchased the Tampa Bay, Jacksonville, Tampa and Key West Railway which had run out of money. With this charter Plant received the incredible grant of 10,000 acres of land plus alternate sections within six miles on each side for each mile of track laid. Thus, he received a total of 13,840 acres for a mile of track. By official records Plant received a total of 4,202,038 acres of Florida land in grants and there is substantial evidence that he acquired even more.[2] His railroads lost money for years but such losses were insignificant in the face of such enormous land acquisition.

Surprisingly, with all of this effort and investment, Mr. Plant had never visited Tampa. He had made the decision to extend his railroad by simply studying maps and navigation charts. On December 1, 1883, Plant entered Tampa in triumph aboard his own train accompanied by the president of the South Florida Railroad, James E. Ingraham. The party given that evening at the old Orange Grove Hotel, now the site of the Federal Building, still stands as one of Tampa's monumental social occasions.

Another great loss occurred in 1895. Dr. John P. Wall of Tampa, a great medical and civic leader and a past President of the Florida Medical Association, died in April while addressing a session of the Florida Medical Association.[4] Responsible citizens of Tampa were searching for a

physician to take his practice and to assume some of his many civic duties. Dr. Oppenheimer, with his established reputation both as a physician and surgeon and with his wide cultural background, was a natural choice. He had attracted the interest of Colonel Peter O. Knight (grandfather of Tampa internist Peter O. Knight IV) two years prior. Colonel Knight, then in the process of establishing Tampa Electric Company, urged the Oppenheimers to move to Tampa.[5]

This move occurred in 1896, and the Oppenheimers occupied the house of the late Dr. Wall. This house and its supporting stables were located on the spot where the Tampa Federal Savings Bank now stands. In spite of its recent growth, Tampa was still a primitive frontier town without water supply or sewers. It retained much of the color and character of the Old West, as its major industry was still the exportation of cattle to war-torn Cuba.[6] The sandy streets, board sidewalks, armed cowboys and noisy saloons were typical of a cattle town. The shoot-out was still socially acceptable as a proper way to resolve an argument.

The most common currency in use was the Spanish doubloon and the American silver dollar. Spanish paper currency from Cuba was worthless. The Florida cattle barons accepted only the solid gold doubloon—a coin worth $16.80 each.[6] Their motto was "if you can bite it, you can spend it." On the other hand, the Spanish and Cuban cigar makers living in Tampa, suspicious because of past civil strife and labor disputes, did not trust American currency. They demanded payment in silver. This led to the building of a narrow gauge railroad, with a woodburning locomotive, which carried the heavy load of coins from the bank on Franklin Street to the cigar factories of Ybor City. The coins could not be carried by horse-drawn wagon through the sandy ruts.

Once again, Oppenheimer fell even more deeply under the influence of Henry B. Plant. Largely in an effort to outdo his friend and rival, Henry Flagler, Plant had begun in 1888 to build the Tampa Bay Hotel, as the southern terminus of his railroad. The hotel that architect J. A. Wood of New York created was indeed unique—a dark red castle of Moorish architecture modeled after the Alhambra in Granada. It was a tremendous rambling building, five stories high, two blocks long, and covering six acres. By the time it was completed in 1891, it had cost $3 million to build and $1½ million to furnish with European art treasures. Moorish arches supported all of the balconies and over it towered 13 silvery domes, each topped by a minaret. It contained 500 rooms and if operated as a hotel today would still be the largest in Tampa. All the floors and ceilings were made of concrete reinforced with countless tons of steel rails salvaged when the South Florida changed its tracks to standard gauge. It was in the atmosphere of this hotel that Oppenheimer finally came into his true element.

Medical Practice

The medical community in Tampa by 1895 was divided into two opposing factions, those physicians who practiced in a conventional manner and those who practiced under contract to the large Latin health societies. A generous contract as Surgical Director was offered to Dr. Oppenheimer by a coalition of these societies. He was forced to resign from the Hillsborough



Fig. 2.—Tampa Bay Hotel in 1898. The wooden River Pavilion and Boat House were destroyed by hurricanes. The dark brick Casino at right burned in 1939. The long main building became the University of Tampa in 1934.

County Medical Society in order to accept this position. After two years of these duties, he could no longer stand the censure of his peers. He resigned his post and was readmitted to the county society. By this time the Tampa Bay Hotel was open, and Oppenheimer had developed a warm friendship with Plant. It was Plant who enabled him to build a home across the street from the hotel and who appointed Oppenheimer as house physician to the Tampa Bay Hotel.

Oppenheimer was friend, confidant and physician to Plant. With a mastery of six languages, he was indispensable to the Hotel as a translator. His charm, wit and intelligence made him one of the true personalities of the Hotel. With the beginning of the Spanish-American War in 1898, it was obvious that embarkation of troops would occur somewhere in Florida. Both Plant and Flagler set out to have their hotel and port accommodations designated as this point. Each had his physician (Dr. Worley of St. Augustine representing Flagler) write a glowing account of the health facilities available at each hotel. These quasi-medical pamphlets, both published in 1898, are liberally sprinkled with descriptions of port facilities, hotel accommodations and tourist attractions.[7] Dr. Oppenheimer appeared to be the more skillful writer. The War Department chose Tampa as an embarkation point and the Tampa Bay Hotel as its headquarters.

It was in this heyday of the hotel that Dr. Oppenheimer treated his most famous patients. Among these were Theodore Roosevelt, Thomas A. Edison, William Jennings Bryan, the famous writer Elbert Hubbard and the Parisian actress Sarah Bernhardt. When the doctor entered her room and addressed her in flawless French, Miss Bernhardt burst into tears at the sound of her native language. She spoke little English.[3]

With the arrival of Theodore Roosevelt, his staff and thousands of American troops destined for Cuba and the Spanish-American War, the Tampa Bay Hotel reached its zenith. "The big lobby of the hotel exploded in a flash of golden braid, glittering sword hilts, and boots bright with polish. Wide-brimmed Stetsons and the dark blue uniforms of the army men were the prevailing note, but here and there were monocled men in foreign uniforms, the military attaches of European nations, standing by to see what they could of the show. Also, there were officer's wives and a throng of newspaper men from northern cities."[8]

A tragic story of a wealthy hotel guest appears later in the doctor's journal. In February 1905, he was called to see an attractive young woman in her thirties. She occupied a room on the second floor fronting the doctor's residence on the opposite side of the park. She was quite upset emotionally and confided that she had come to Tampa to obtain a divorce from her alcoholic husband. She was still deeply in love with her husband but could endure his abuse no longer. He was insanely jealous of her and when drinking had threatened to kill her.

The following morning when Mrs. Oppenheimer went into her children's room facing the hotel, she found a small hole in the windowpane and a spent bullet lying on the floor. Dr. Oppenheimer put the bullet in his pocket and set out on his usual morning rounds in the hotel. It was then that his patient told him that her husband had come to her room intoxicated and had fired at her with a pistol, and then hurried away. When the flattened bullet was taken from his pocket and shown to the patient, she exclaimed, "Doctor, you got the bullet instead of me. What shall I do?" She refused to have the house detective protect her and was seen later in the day walking with her husband in the park, conversing calmly.

Early the next morning the housekeeper hurriedly called the doctor to the patient's room. On the bed lay the man and woman, both fully clothed in their finest ballroom attire—arms closely clasping each other—dead. The bedside table contained a small empty bottle of potassium cyanide tablets.[3]

His practice was by no means confined to the hotel. He enjoyed a large private practice in the town and was also Surgeon-in-Chief for the Seaboard Airline Railroad. He performed the first appendectomy in the City of Tampa in 1896.[9] This was noteworthy in view of the fact that acute appendicitis had only recently been differentiated as a surgical emergency from typhlitis and perityphlitis by the brilliant Boston pathologist-internist, Reginald Fitz.[10] Dr. Oppenheimer recognized the disease in a ten year old boy and operated on the family kitchen table with chloroform anesthesia. The boy's rapid recovery was considered near miraculous by the lay community. This was a fairly accurate assessment in view of the site and circumstances of the operation.

Innovation came easily to Dr. Oppenheimer. In addition to the first appendectomy, he established many precedents in Tampa including the first fixed traction splint, first Red Cross Aid

Station (at the Florida Fair), installation of the first x-ray equipment, and the first use of antisera for rabies and tetanus. He used the first diphtheria antitoxin in the city to treat his youngest daughter, Carmen.[9]

His surgical experience varied widely, even into neurosurgery. He recalls in his journal that one morning he was called to the Seaboard Railroad yards where Negro section hands had been sleeping in abandoned box cars. One of the men had been beaten in the left temple with a bloody hammer, which lay on the floor. "I ordered a bucket of water, a basin, a cake of soap, and as many clean towels as they could gather up. How clean these towels were may easily be imagined. They were steeped in a weak bichloride of mercury solution and squeezed as dry as possible. After cleaning and disinfecting the scalp as thoroughly as possible and cutting away all the hair, I found a crushed skull over the left temple. A mass of brain was protruding from the wound. After enlarging the wound with a scalpel and removing all loose bone, I cut away all projecting brain down level with the meninges, about a large tablespoonful in all. The wound was carefully cleansed again, a small drain was inserted, and the wound was closed lightly with silk sutures. He did not move or make a sound during all these rough, crude, unsterile manipulations."

"Three days later I was astounded by the patient, who marched into my office, assisted by a fellow section hand. He had no pain or fever, but was utterly unable to speak a word. Obviously, the speech center in his brain had been injured or destroyed. He was told at this time that he had more sense with less brains than he ever had before. Several years before I operated on a similar patient, a young doctor who had accidentally shot away the same region of his skull in a hunting accident. I removed about the same amount of brain in this patient, and prognosed the loss of speech. His wife wrote me some years after that he had recovered his speech to a great extent after about three years."[3]

The Final Years

The Oppenheimer children, five daughters and a son, were no less vigorous or gifted than their father. Growing up in a world filled with fine books, music and sober industry they found it easy to share and to emulate their father's accomplishments. Daughter, Hortense (Ford), became incensed at the city fathers in 1914 because the City Hall had no tower clock to give the proper time. Yielding under the pressure of Mrs. Ford and her irate band of ladies the mayor erected a large clock in the City Hall tower with four faces. Inevitably, it was named "Hortense" and it still keeps accurate time today. The other sisters, Irma, Olive, Dorothy and Carmen, are still involved in the cultural affairs of Tampa, including the Friday Morning Musicale which was established by Dr. Oppenheimer.



Fig. 3.—In 1898 Dr. Oppenheimer, always nattily dressed, made rounds in a carriage drawn by his favorite stallion, Ned.



Fig. 4.—This wood-burning train ran between downtown Tampa and Ybor City from 1886 to 1896. Although it carried some passengers, it was chiefly used to transport heavy loads of silver coins for the payrolls of the Cuban and Spanish cigar workers in Ybor City.

One of the most prolific medical authors in Florida, Dr. Oppenheimer covered the widest variety of subjects. He provides an exhaustive description of the diagnosis and treatment of cholelithiasis in the Western Medical Reporter of June, 1881. Two years later in the same journal,[11] he expressed sharp criticism of the excessive use of surgery to correct retroversion of the uterus.

In 1923 he defined a management of endocervicitis which would still be acceptable.[12] Five years later he is found chiding the plastic surgeons for their failure to use cosmetics and tattooing in the correction of deformities of the face and eye.[13] In spite of the improbable title of "Worship of the Sun" a 1937 paper predicts many of the problems of solar injuries encountered by the currently overexposed population.[14]

On the philosophical side, there are papers on "Some Incongruities in the Medical Profession,"[15] "Music in Medicine"[16] and "The Victories of the Disabiliteer."[17] The latter is a classic description of the modes and methods of both patients and lawyers seeking disability benefits. With the exception of the whiplash injury, these vignettes are virtually unaltered 45 years later. In advice in 1936 on how to "Live Longer"[18] he advocates lowering the serum lipids by dieting.

In his later life Dr. Oppenheimer received many honors from his medical colleagues. Newspaper clippings and an old printed program reveal that on the night of March 11, 1932, at El Pasaje Restaurant in Ybor City, a testimonial dinner was held by the Hillsborough County Medical Association in his honor. The Society President, Dr. Leland Carlton (uncle of Tampa surgeon Leffie M. Carlton), presented Dr. Oppenheimer with a gold watch, chain, and fob suitably inscribed with the sentiments of the Society.[19]

Minutes of the Hillsborough County Medical Association record that on January 24, 1936, a formal banquet was held at Palma Ceia Golf and Country Club with Dr. Oppenheimer as the guest of honor. On this, as on other occasions, he was lauded as the "Dean of the Florida Profession."

Death came as no stranger to Oppenheimer. At the age of 83 he suffered a severe myocardial infarction and, contrary to most expectations, made a partial recovery. Confined by angina and cardiac failure he predicted that he would die within a year. It was then that he undertook the formidable task of writing, not an autobiography, but rather an extensive set of notes and recollections spanning his entire life. One of his opening remarks of these pages is a rather sage observation that "no sane man will write a complete history of his life."

During his last illness, on Sunday, January 2, 1938, the Tampa Tribune[1] devoted an entire page, including several pictures, to the doctor's rich life and varied experiences. This yellowed, 33 year old page gives ample evidence of the respect and affection held for him. How many physicians practicing today would merit such an accolade?

An accurate clinician to the last, Dr. Oppenheimer died on June 12, 1939, 33 days within the limits of his own prognosis.

Addendum

The author is deeply grateful to the late Mrs. Hortense Oppenheimer Ford for her generous aid and unfailing enthusiasm in the preparation of this biographic sketch of her father. A few days before completion of this manuscript, Mrs. Ford suffered a coronary occlusion and died on May 28, 1971.

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The Army and Public Health in Reconstruction Florida

Jerrell H. Shofner

The legacy of sectional bitterness which the Civil War left in Florida was caused as much by the events of reconstruction between 1865 and 1877 as by military action before that time. Much of the ill-feeling was engendered because of the military occupation. Even in defeat Floridians resented the presence of victorious Union soldiers in their communities. A constant reminder of the outcome of the recent war, occupation soldiers were social outcasts and almost everything they did was regarded as an affront by the local citizens. That many of the soldiers in the early occupation were black did not help matters. Legends were built on the basis of real or imagined humiliations suffered by Floridians at the hands of the conquering army.

Hospitalization

Yet, at the same time, there was important cooperation at several levels of daily activity between the occupation forces and state officials. In many ways the army and the quasi-military Freedmen's Bureau performed vital services for a destitute population. Had the circumstances of their presence been different, their assistance in controlling epidemic diseases and providing hospitalization for aged and infirm freedmen, for example, might have won them praise and gratitude instead of condemnation.

Yellow fever, cholera, and smallpox had often threatened the ports and interior towns of Florida before 1860. Local governments were empowered to inspect and quarantine suspected carriers of the diseases, but in 1865 they were unable to act because they lacked financial resources and their legal status was extremely doubtful during the military occupation. At the same time, some infirm freedmen had been left without any agency, public or private, to provide the care formerly furnished them by the plantation owners before emancipation. There was an immediate and pressing need for a hospital and no civil authority in the state had any way of establishing one. Both the army and the Freedmen's Bureau provided assistance in these matters.

When Freedmen's Bureau Assistant Commissioner Thomas W. Osborn first arrived in the state, one of his early acts was to establish a small hospital at Magnolia on the St. Johns. Because his own financial resources were limited and he wished to teach the recently freed Negroes to rely on themselves as much as possible, Osborn admitted only aged and infirm patients who could not be placed for care with their families or neighbors. All others were required to provide for themselves. The Magnolia hospital was maintained until 1868 when its few remaining inmates were returned to the counties where they had last resided. By that time the state government was restored and the county commissioners were made responsible for the care of infirm indigents. Without extravagant use of public funds the Freedmen's Bureau had provided an essential service during the transitional period when Florida society was disrupted and unable to handle such necessary public facilities.[1]

Epidemic

The Bureau also responded to other emergencies. A smallpox epidemic raged through North Florida from Fernandina to Marianna in late 1865. Although one physician described it as a "mild variety," it caused a number of deaths, incapacitated hundreds, and threatened the entire population. Partially because most of the victims were Negroes, officials of Nassau and Bradford Counties were reluctant to accept responsibility for combatting it. On the other hand, the Tallahassee mayor and other officials saw the problem in a different light and did what they could to help control the disease. Since the Bureau was the only agency organized on a statewide basis, however, it assumed the initiative in fighting the epidemic while most local officials and native physicians rendered assistance. Several schools were closed to prevent the smallpox from spreading. "Pest

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houses" were established in most communities for the confinement of sick persons. In addition to the policy of isolating disease victims, the Bureau also provided funds for an inoculation program. Local physicians were employed under contract to vaccinate as many persons as possible in both towns and countryside. Planters generally cooperated with the Bureau on this important matter. The disease was not fatal to most victims, but it persisted until the spring of 1866 and struck again the following winter. Although it was much less serious the second time, the Bureau and local officials again cooperated to contain the disease.[2]

Quarantine

When cholera broke out in 1866 at Jacksonville, Lake City, Palatka, Cedar Key, Apalachicola, and Pensacola, Major General John G. Foster, military commander of the Florida district, assisted in isolating and treating the cases. One reason for his ability to rapidly identify and report the presence of cholera was the extensive quarantine system which he had already established in the Florida ports and coastal towns primarily to guard against yellow fever. In the fall he reported to Washington that the cholera had been contained and all patients were responding favorably to treatment. Perhaps his greatest service in trying to control cholera was the quarantining of 472 recruits destined to join his command. When the disease developed on their ship, they were quarantined on Tybee Island near Savannah. Of the 472 soldiers, 115 died and 45 others were rendered unfit for duty. As they were permitted to leave the island, Foster further retained them on Anastasia Island near St. Augustine until he was certain that they were not carrying the disease. Local citizens acknowledged their appreciation for his precautions.[3]

Yellow fever was the greatest threat to the health of Floridians and the army expended its greatest effort and expense in trying to control that disease. Prevention of yellow fever was the major purpose of the quarantine system which Foster had established all along the Florida coast. Although local governments were almost totally unable to perform the necessary inspections and quarantines in the port cities and most citizens were grateful for the military assistance, this activity generated more friction and hostility than any other related to public health.

Inspection

Recognizing the vulnerability of the Southern ports to yellow fever and the lack of local civil resources to deal with it, General Ulysses S. Grant directed all military commanders in the South to establish and maintain rigid quarantine systems. In early 1866, General Foster authorized his surgeon, Lieutenant Colonel A. B. Hassan, to establish inspection stations at all ports and staff them with military surgeons or contract with local medical doctors to do the work. The physicians were empowered to inspect all incoming vessels, quarantine all infected ships, and turn fever victims over to quarantine hospitals for treatment. Ship masters were to be assessed fees of three dollars during daylight and five dollars at night. Colonel Hassan was to provide the hospital facilities and quarantine anchorages at convenient locations. Boarding stations and quarantine areas were to be prominently marked with yellow flags. If the stations were not adjacent to military posts where gun batteries were available, then field pieces manned by gunners were to be supplied for the purpose of stopping reluctant ship masters.[4]

The quarantine hospital for East Florida was located on Cumberland Island and a quarantine anchorage was established in St. Mary's Sound. A civilian doctor named Clay contracted to serve as the boarding surgeon at Fernandina, but when his refusal to live at the station caused many complaints of delays by ship masters, he was removed. The duty then went to Dr. A. B. Stonelake who agreed to live at the station and perform prompt inspections. The boarding station was near Fort Clinch where gun batteries were available. Jacksonville was protected by a boarding station at Mayport Mills, three miles inside the bar at the mouth of the St. Johns River. The boarding surgeon was Dr. E. B. Eastman. He was assisted by a field piece manned by gunners. Dr. John E. Peck performed the same service for St. Augustine. His station was three miles inside the sandbar and marked with a buoy and yellow flag. Vessels were stopped for inspection by the water battery at Fort Marion. At Indian River and other infrequently visited inlets south of St. Augustine, civil authorities promised to maintain a strict quarantine without military assistance.[5]

With few exceptions, boarding stations at the Gulf ports from Key West to Pensacola were manned by medical officers on duty at nearby military posts. At Key West the assistant surgeon at Fort Taylor served as the boarding official and the Fort's artillery halted the vessels. At Fort Jefferson in the Dry Tortugas the medical officer also doubled as boarding surgeon. Another quarantine hospital was located there. At Tampa the

medical officer of the Fifth Artillery handled the inspections. The boarding surgeon at Cedar Key was W. F. Hyson. Referred to as the Acting Assistant Surgeon he was apparently a civilian who contracted for the position. A contract surgeon whose name was not recorded manned the St. Marks boarding station which was situated several miles below the port at the lighthouse. It was marked by a yellow flag and protected by a field piece. At Apalachicola harbor, which could be approached by both an east and a west pass, two surgeons of the 82nd United States Colored Infantry Regiment were stationed. C. Eberhard watched the west pass and W. Carroll the east. Near the west pass boarding station on St. Vincent Island there was also a quarantine hospital. An anchorage for vessels of deep draft was maintained on the lee side of Dog Island. Assistant Surgeon J. H. Baird of the 82nd Colored Infantry was assigned to the Pensacola station at Fort Pickens on the western end of Santa Rosa Island. A quarantine anchorage was in nearby Navy Cove.[6]

The army's quarantine system was apparently effective in 1866. Yellow fever broke out at Key West, but was confined to that port.

Quarantine System Difficulties

Only at Fernandina did the military quarantine system cause difficulty with local civilians. The trouble resulted partially from Dr. Clay's refusal to live at the inspection station which caused long delays for vessels awaiting his clearance. But there were heated encounters between local citizens and United States officials at Fernandina arising from other problems which probably exacerbated the inspection difficulties. The Savannah firm of Clayborn and Cunningham complained of inordinate delays of its vessels, but that problem was corrected after Stonelake agreed to move his residence to the station. A more serious and enduring difficulty arose when the belligerent and impatient Captain James Tucker of the *Sylvan Shore,* an unreconstructed Confederate, refused to submit his vessel to inspection.

Resentful of any interference by military authorities and already embroiled with them over a question of land titles in the town, Tucker cursed and threatened Stonelake and demanded that the Freedmen's Bureau officer intervene with the boarding surgeon to exempt his vessel from inspection requirements. Without authority in the controversy, the Bureau officer declined. The steamer captain then threatened him with a physical attack and declared that he would not transport any more government freight until his ship was exempted from the necessity of inspections each time it entered port. General Foster refused even to consider Tucker's demands and expressed surprise that the captain would "ask any indulgence of this kind after your insulting acts, words and letters towards and to the Officers of the Government on duty in this state." The general explained that the quarantine was in compliance with General Grant's express orders and that "no good citizen . . . will . . . complain of the personal annoyances of himself when the lives of many citizens may be thus saved."[7]

The Fernandina situation was exceptional. No similar difficulties arose at other ports. Foster complained that the quarantine system placed a heavy burden on his limited resources, but he recognized that the "paucity of means of the Civil authorities" made it difficult for them to offer much aid. Local governing officials were as anxious to take over quarantine duties as Foster was to give them up, however. By late 1866, Fernandina, Jacksonville, and St. Augustine civil authorities had assumed responsibility for inspections and quarantines. When the 82nd Colored Infantry was mustered out of the service in September, 1866, Foster was left so short of doctors that he closed both boarding stations at Apalachicola and left further responsibility to city officials. He continued to man the busy station at Pensacola, however.[8]

Value of Quarantine System

It is difficult to evaluate the success of the military quarantine system because of its brief duration. It undoubtedly enabled the local officials to resume the responsibility sooner than they might otherwise have since all that was required of them was to furnish personnel for an already established system. That the only yellow fever outbreak in the state in 1866 was contained at Key West was significant. Yet epidemics occurred in 1867 at Tampa, the Tortugas, and Pensacola, all of which still had military quarantine systems. The latter two were especially severe. The prison at Fort Jefferson was hard hit. Dr. Samuel A. Mudd, imprisoned there for complicity in the assassination of Abraham Lincoln, was subsequently pardoned for his courageous service during the epidemic. Pensacola and the nearby Navy Yard were brought practically to a standstill by the fever. Everyone who could fled the city for healthier localities and many who remained died.[9]

Perhaps the most important lesson learned

from the military system of 1866 was the necessity of a statewide authority for controlling the disease. The state legislature gave local governments greater regulatory powers in an 1869 enactment, but because local citizens were often reluctant to isolate their communities and deprive them of commerce, epidemics were sometimes not reported until it was too late to prevent them from spreading.[10] Many observers recognized the necessity for a statewide system such as that implemented by General Foster and began calling for enabling legislation. But the desire for continued local control was strong. The state continued to suffer from the disease until the Jacksonville debacle of 1888 finally spurred the legislature to create a state board of health. Meanwhile, the United States army at least bridged the gap in 1866 when local governments were absolutely unable to act and willingly withdrew as soon as those agencies could take over. Local authorities thus acquired facilities for a quarantine system without having to draw on their over-burdened treasuries.

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Because of published reports of consistently high cure rates—often up to 100 percent—and a relatively low incidence of side effects, Flagyl has become the agent of choice for trichomonal vaginitis.

Indications: For the treatment of trichomoniasis in both male and female patients and the sexual partners of patients with a recurrence of the infection provided trichomonads have been demonstrated by wet smear or culture.

Contraindications: Evidence of or a history of blood dyscrasia, active organic disease of the central nervous system and the first trimester of pregnancy.

Warnings: Use with discretion during the second and third trimesters of pregnancy and restrict to patients not cured by topical measures. Flagyl (metronidazole) is secreted in the breast milk of nursing mothers. It is not known whether this can be injurious to the newborn.

Precautions: Mild leukopenia has been reported during Flagyl use; total and differential leukocyte counts are recommended before and after treatment with the drug, especially if a second course is necessary. Avoid alcoholic beverages during Flagyl therapy because abdominal cramps, vomiting and flushing may occur. Discontinue Flagyl promptly if abnormal neurologic signs occur. There is no accepted proof that Flagyl is effective against other organisms and it should not be used in the treatment of other conditions. Exacerbation of moniliasis may occur.

Adverse Reactions: Nausea, headache, anorexia, vomiting, diarrhea, epigastric distress, abdominal cramping, constipation, a metallic, sharp and unpleasant taste, furry or sore tongue, glossitis and stomatitis possibly associated with a sudden overgrowth of *Monilia*, exacerbation of vaginal moniliasis, an occasional reversible moderate leukopenia, dizziness, vertigo, drowsiness, incoordination and ataxia, numbness or paresthesia of an extremity, fleeting joint pains, confusion, irritability, depression, insomnia, mild erythematous eruptions, "weakness," urticaria, flushing, dryness of the mouth, vagina or vulva, vaginal burning, pruritus, dysuria, cystitis, a sense of pelvic pressure, dyspareunia, fever, polyuria, incontinence, decrease of libido, nasal congestion, proctitis, pyuria and darkened urine have occurred in patients receiving the drug. Patients receiving Flagyl may experience abdominal distress, nausea, vomiting or headache if alcoholic beverages are consumed. The taste of alcoholic beverages may also be modified.

Dosage and Administration: *In the Female.* One 250-mg. tablet orally three times daily for ten days. Courses may be repeated if required in especially stubborn cases; in such patients an interval of four to six weeks between courses and total and differential leukocyte counts before, during and after treatment are recommended. Vaginal inserts of 500 mg. are available for use, particularly in stubborn cases. *When the vaginal inserts are used* one 500-mg. insert is placed high in the vaginal vault each day for ten days and the oral dosage is reduced to two 250-mg. tablets daily during the ten-day course of treatment. Do not use the vaginal inserts as the sole form of therapy. *In the Male.* Prescribe Flagyl only when trichomonads are demonstrated in the urogenital tract, one 250-mg. tablet two times daily for ten days. Flagyl should be taken by both partners over the same ten-day period when it is prescribed for the male in conjunction with the treatment of his female partner.

Dosage Forms: Oral tablets 250 mg
Vaginal inserts 500 mg

References available on request.

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A Doctor's Day Tribute . . .

To the public, a Doctor is many men: a sadistic jailor, or a barely adequate man who charges too much, and—sometimes—an extension of God, determining life or death.

To his wife, he's many things, too: late to dinner, and so drained of compassion he's an empty shell, or an irritable one. And if an emergency comes he's at the patient's side, not hers. But the worst part is living with the divinity some patients ascribe him. (And which he, himself, doesn't ALWAYS disclaim.)

Now really, is a doctor so very special, even partially divine? At least divinity can be faulted right away because deities don't get sick, and doctors do. This, itself, proves mortal nature, but especially when combined with his attitude to his own illness: colds are undiscovered tumor, injections devices for lethal doses, and he pales to think of *his* veins punctured for blood work. He has had every fatal disease known to man—twice. He is SO human, in fact, he has coined a word, "CROCK" to describe this behavior in his patients. It would seem safe to scratch divinity.

Still, he must have SOMETHING to command the special place he has in society. Women love him. Men tell him secret sins. And his opinion is sought on everything from Moon landings to the state of the economy. He's an acknowledged darling of every party, and that's certainly special treatment . . . especially when he's usually late in arriving, and often leaves when the affair is barely started. Is ANYONE so special as to deserve such continuing consideration from people?

The best evaluation may come from his most forgotten side, his family. Do they see him as divine, special, overrated? Well, to his family the doctor is a man, first and always—a son, a husband and a father. And because he's a man, he has all the weaknesses, the dreams, and all the disappointments of every man. Yet THIS man, every day, willingly accepts the responsibility for the lives of scores of people. In fact, only the guy himself, greeting his patient with a casual "Hi There," really knows just how critical, just how dangerous his work really is. Every treatment, every disease, anything missed COULD turn to fatality. That's quite a thing to do, voluntarily.

Absolute responsibility seldom comes to most of us, and if it does, it's almost always unsought. Yet, by choice, it's the way of life for a physician. It's a rare, particular kind of courage that causes a man, aware of the odds and knowing his own frailties, to assume such responsibility every day. There isn't enough money, and there aren't enough honors to *make* a man live like that. In fact, it takes a lot of quiet courage to just start the day, some mornings. And the only way he can let down, even a little, is to leave town and be known simply as "Mr." for awhile. So, our doctors ARE special, alright, and it shows. That kind of courage stuck on a man leaves a mark.

The next time you see your doctor, take a good look at him. You'll see that his eyes are alert and clear. You'll notice that his hands are sure and graceful. But look again, and remember the courage he's covering, and you'll see a face touched by God.

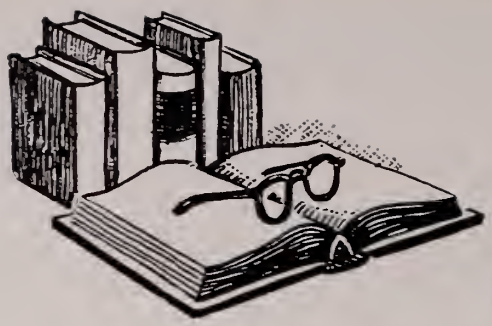
Mrs. N. Harry Carpenter
Fort Lauderdale

Reprinted from The Record, Broward County Medical Association, April 1971.

SOUL SEARCHING

The pretty periwinkle, pulverized, may stifle the growth of a cancer;
So also may the condensate of a simple yeast.
Corrosive vapors which once choked opposing armies, when liquefied, are likewise useful.
Life is the justification for man's relentless quest
And on this premise much is gambled.
Yet there remain questions—
Spirits which prolong life
Sometimes wreak havoc through innocent parts
Sparing little anguish.
Life implies quality as well as quantity;
Extending it is a noble endeavor
But prolonging death is selfish and inhumane.
Judgment should not succumb to panegyrics.
Hope, our most precious commodity
Must be neither compromised nor profaned.

—A. L. Lieber, M.D.
Miami Beach



Book Reviews

The Face in Genetic Disorders by Richard M. Goodman, M.D. and Robert J. Gorlin, D.D.S., M.S. Pp. 169. Price $19.00. St. Louis, The C. V. Mosby Company, 1970.

At what point does a funny face become a pathognomonic facies? How many of us represent *formes frustres* of genetic disorders? What is a "normal" face? These questions occurred to the reviewer after reading "The Face in Genetic Disorders" which is a slim, but tall, volume depicting 75 syndromes of altered morphogenesis. They run from Achondroplasia to XO Turner's syndrome under which, surprisingly, there is no reference to Male Turner's syndrome, now a respectably established entity.

Each syndrome is briefly described on one page under the headings: Historical Note, Facial Features, Other Clinical Features, Diagnosis, Basic Defect, Genetics, Prognosis and Treatment. The style is telegraphic and a set of references is listed for each disease.

Cursory and painless browsing in this book should help an alert physician cull the occasional rare syndrome. In a lifetime he is, of course, unlikely to encounter all of these disorders in the flesh because they represent the combined findings of dozens of contributors in various countries. The 276 photographs are all of excellent quality although only four are in color. For some unexplained reason genitalia have been scrupulously masked out in all full body photographs. Are the authors perhaps saving these pictures for a companion volume?

The eponyms of many of these syndromes are not on the tip of everyone's tongue: e.g., Witkop-von Sallmann's syndrome or Touraine-Solente-Golé syndrome. Fortunately, most are identified by their descriptive names as well. Were they all as simple as Kinky Hair Disease or Whistling Face syndrome we should all be syndrome pundits in no time. Whether eponym or descriptive name gets preference seems to depend on the caprice of the authors. Thus we find "Apert's syndrome" (Acrocephalosyndactyly), and "Lesch-Nyhan syndrome" (Juvenile gout with self-mutilation and choreoathetosis), but "Progeria" (Hutchinson-Gilford syndrome), and "Ataxia-telangiectasia" (Louis-Bar syndrome).

A very rewarding section is the seventeen page "Introduction to Genetic Inheritance and Counseling" which reviews basic principles and brings the reader up to date. Even the most recent graduate cannot fail to be impressed with the list of no less than 121 X linked disorders!

Unhappily there is no index; therefore, while the book is a useful reference work for looking up the features of a specific syndrome, the converse does not apply. There is no means of identifying a constellation of unusual anatomical features as a syndrome; however odious comparisons may be, one cannot but call to mind the excellent, cross-referenced index to be found in "Atlas of Mental Retardation Syndromes" which, thanks to an HEW subsidy, costs only $5.50.

Colin Kendall, M.D.
Temple Terrace

WIDOW

You had your mate plucked from you
While both were in the prime.
It's not fair to have to be alone.
Now, looking older than you are
You come around a lot
And do nice things for people you hardly know.
Loneliness burns, pervades, dissects
Aches and hurts
And finally, becomes a way of life.

—A. L. Lieber, M.D.
Miami Beach

Macular Diseases by J. Donald M. Gass, M.D. Pp. 232. Illustrated. Price $48.50. St. Louis, The C. V. Mosby Company, 1970.

At last! A clear, well-written classification and description of macular disease. In this excellent book, Dr. Gass gives a lucid description of the normal macular structure and explains how this relates to normal angiographic findings. He then gives us a brilliant portrayal of the changes occurring in macular disease, elucidating them with angiographic findings in each case. The accompanying stereoscopic photographs are crystal clear and well chosen, giving powerful emphasis to the written text.

The chapter on choroidal disease causing disciform detachment of the macula is especially exciting. The pathogenesis and progress of this disorder is superbly described and depicted.

This book gives new insight into what were previously puzzling and unexplainable ophthalmoscopic changes. *Macular Diseases* deserves the attention of all physicians concerned with visual acuity. A real joy to read!

Cecil C. Beehler, M.D.
Fort Myers

Selective Bibliography of Orthopaedic Surgery. 2nd Ed. By the American Academy of Orthopaedic Surgery. Price $7.25. St. Louis, The C. V. Mosby Company, 1970.

The new second edition of "Selective Bibliography of Orthopaedic Surgery," is an expanded, enlarged, revised, and generally more impressive version of the old. The purpose "to make it easier for those with an interest in orthopaedic surgery to select references pertaining to a specific subject."

The preface explains that 6,000 new references were reviewed in addition to the old material, and only the best were selected. The best being the clearest, most up-to-date and complete. Preference was given to articles that had better bibliographies for cross referencing. A basic science section is added in this addition and the pages increased from 79 to 114. The references range in age from the 1920's to the late '60's. Not all the references listed are in English and some may be hard to find in the average hospital library but this *is* the place to start looking.

Joel P. Kallan, M.D.
Miami

Receipt of the following books is acknowledged. While time and space will not permit review of all books received, medical readers interested in reviewing particular books are invited to address requests to the Editor. Following acceptance of a written review for publication, a reviewer may then retain the book reviewed for his personal or favorite library.—Ed.

The Adolescent Patient by William A. Daniel Jr., M.D. Pp. 444. 76 illustrations. Price $20.50. St. Louis, The C. V. Mosby Company, 1970.

Spectroscopic Approaches to Biomolecular Conformation edited by D. W. Urry. Pp. 314. Illustrated. Price $15.00. Chicago, American Medical Association, 1970.

Guides to the Evaluation of Permanent Impairment by the Committee on Rating of Mental and Physical Impairment of the American Medical Association. Pp. 164. Price $5. Copyright, Chicago, American Medical Association, 1971.

Brands, Generics, Prices and Quality by PMA. Pp. 118. Price $1.00. Washington, D. C., Pharmaceutical Manufacturers Association, 1971.

Fifth Conference on War Surgery, Tokyo, Japan, March 29-April 2, 1971. Pp. 73. Copies available from CINCPAC, Attn: Surgeon, FPO San Francisco, California 96610.

Development and Legal Regulation of Coercive Behavior Modification Techniques With Offenders by Ralph K. Schwitzgebel, Ed.D., J.D., Harvard University. Pp. 90. Price 45 cents. Public Health Service Publication 2067, U.S. Government Printing Office, Washington, D.C. 20402.

Medical Parasitology by J. Walter Beck, B.S., M.S., Ph.D. and Elizabeth Barrett-Connor, B.A., M.D., D.C.M.T. (London). Pp. 210. Price $10.75. 150 illustrations. St. Louis, The C. V. Mosby Company, 1971.

Handbook of Clinical Dermatoglyphs by Musallam S. Elbualy and Joan D. Schindeler. Pp. 64. Price $6.95. Coral Gables, University of Miami Press, 1971.

Synopsis of Pediatrics by James G. Hughes, M.D. Pp. 1141. Illustrated. Price $14.50. St. Louis, The C. V. Mosby Company, 1971.

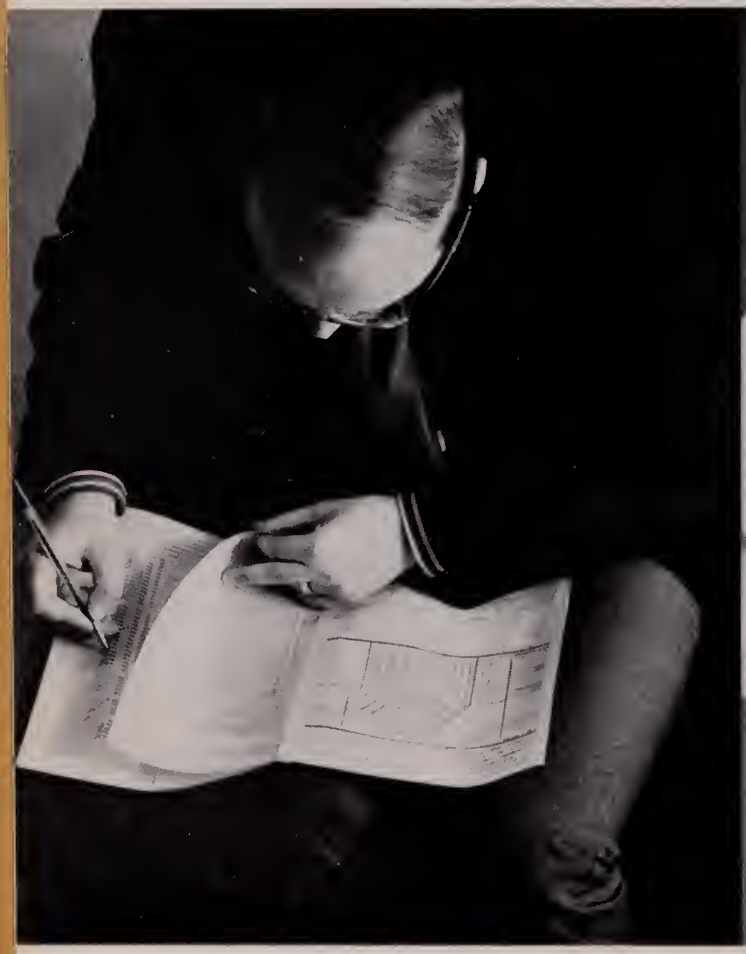
Handbook of Obstetrics and Gynecology by Ralph C. Benson, M.D. Illustrated by Laurel V. Schaubert. Pp. 774. Price $6.50. Los Altos, Lange Medical Publications, 1971.

Speech Pathology by William H. Perkins, Ph.D. Illustrated. Pp. 449. Price $11.75. St. Louis, The C. V. Mosby Company, 1971.

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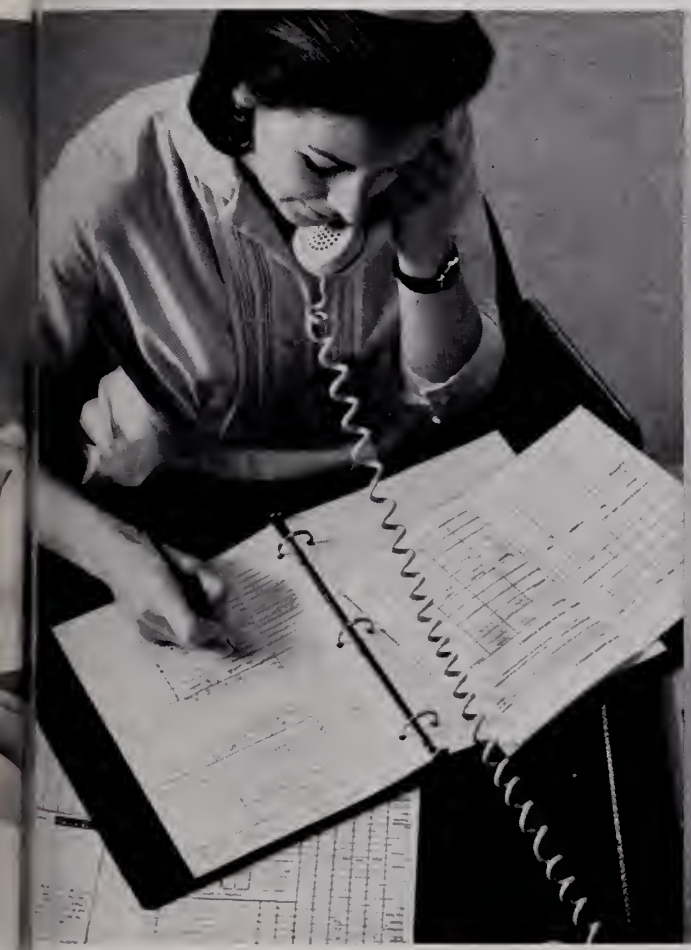
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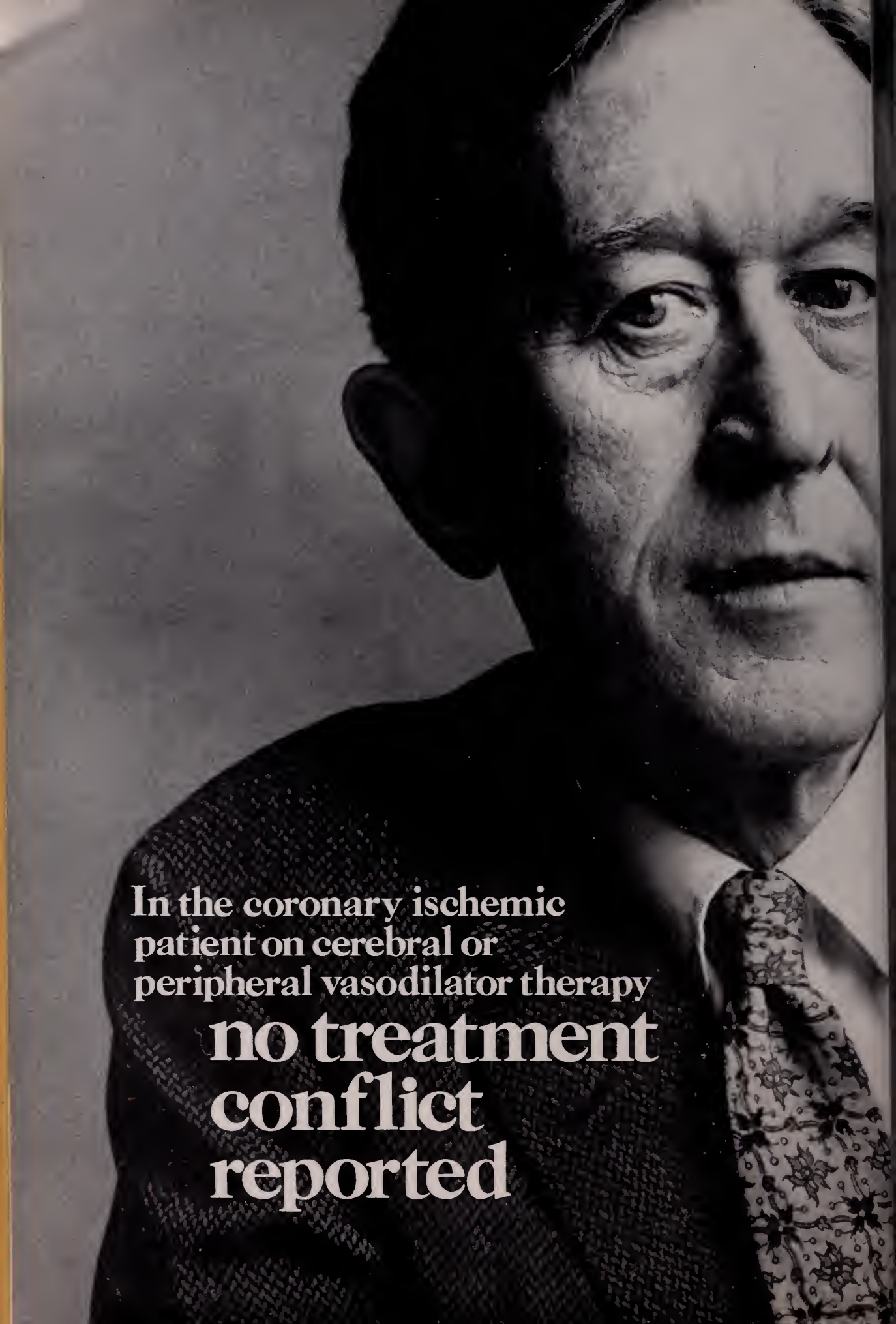




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Although not all clinicians agree on the value of vasodilators in vascular disease, several investigators[1-4] have reported favorably on the effects of isoxsuprine. Effects have been demonstrated both by objective measurement[2,4] and observation of clinical improvement.[1,3]
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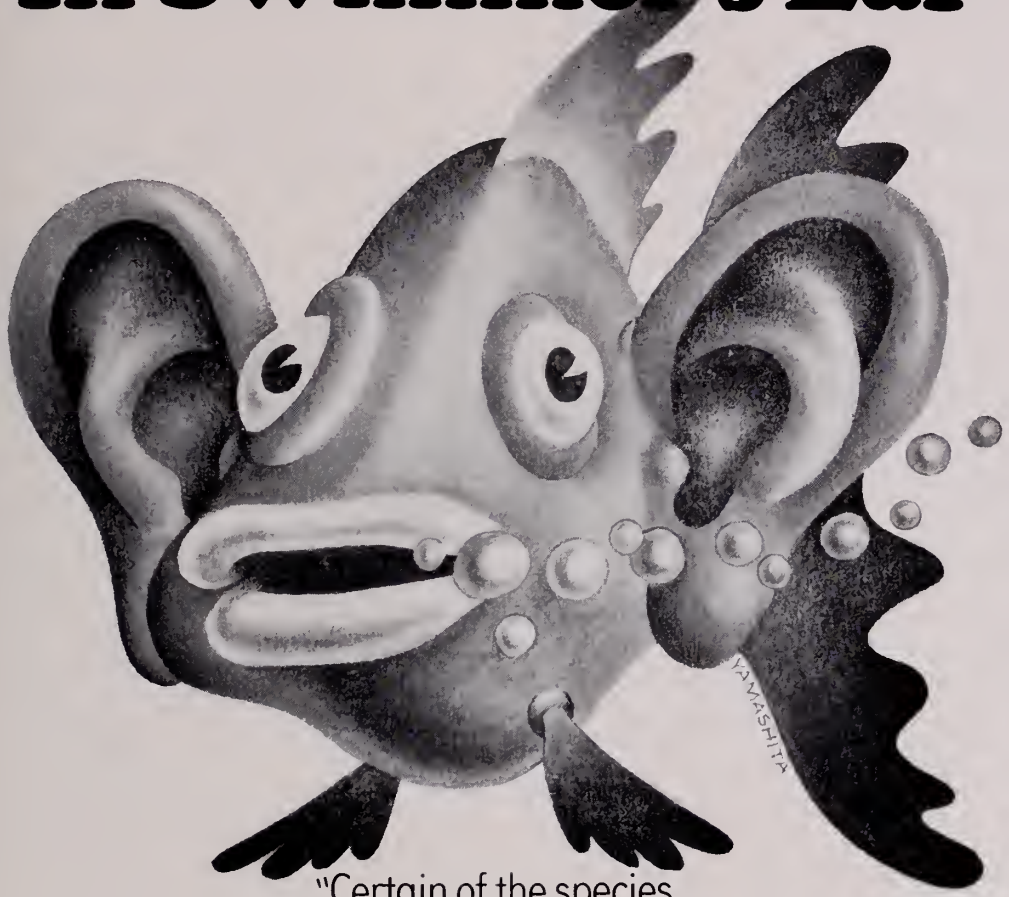
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"Certain of the species are apt to encounter aural difficulties after engaging in various natatory pursuits."

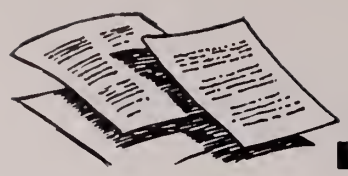
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Precautions: Sensitization may occur with prolonged use and is more likely to develop in eczematous otitis externa. To minimize such reactions (a) limit application to a week or less, and (b) avoid use of excessive amounts which may run down the face.
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Letters

To the Editor:

I read with interest the reprint from the President's Page, The Record, Broward County Medical Association, April 1971, which was carried in the June Issue of the Journal. I am distressed by two of the points that Dr. Gutman made in his editorial.

Firstly, the keeping of a roster of suit-prone patients will be seized upon by the active plaintiffs' attorneys in this area as yet another example of the monolithic medical community denying needed care to one more disadvantaged segment of our citizenry. The Sherman Anti-Trust Act will be flourished at the Broward County Medical Association or any other component society that carries out this practice as an association policy. I am confident. And, after the trial attorneys have had their day, the consumer advocates will have theirs as well in the local press to be sure.

Secondly, when Dr. Gutman characterizes the the "accusations" of the AMA Judicial Council as oblique as well as unjustified, he seems to be even more insensitive. One has only to observe that some few members of our profession seem to be impelled by a belief that if something is legal, it is ethical; that if something is good business practice, it is good medical practice; or, if a third party pays for something, it is conscionable; to be aware of the dire necessity for the AMA Judicial Council to offer guidance or criticism in these matters. My personal belief is, and I speak only as an individual practitioner offering personal care to individual patients, that all too often some physicians in the midst of increasing demands for their services are led far astray from established principles by their business managers, corporations counsel, or financial advisors to their ultimate diminution as doctors of medicine. Such views as I have expressed here may be characterized as antedeluvian by many, constipated by the analytical, or even whimsical by the tolerant, but I feel that the Journal is the place for offering such differences of opinion. I tender this letter in that spirit.

Richard C. Dever, M.D.
Miami

Dear Editor: In Protest Against Dr. Zellner Apologia

Dr. Zellner's apology for the Social Securit Administration recorded in the March 1971 Jou nal must not go unchallenged. To remain silen would mean that we acquiesce to the Social Secu rity Administration's injustices against physician and that might encourage additional incursions.

In his lucid sympathetic portrayal, Dr. Rober Zellner placidly accepts the injustice imposed by the Social Security Administration upon the physicians of Florida when, under Myth #5 he states ". . . SSA on its own initiative . . ." ordered the lower percentile for payments. He refers here to the Social Security Administration's decision to reduce the maximum allowance in the doctors' fees from the 83rd to the 75th percentile.

Under Myth #8, Dr. Zellner again justifies Social Security's monstrously unjust decision to stop Medicare assignment payments to the 395 Florida physicians earmarked for Peer Review. He indicates that, for some reason, the Social Security Administration was unsuccessful in its attempts to go directly to physicians and ask for return of so-called overpayments. It is curiously self-condemning, for he indicates that we physicians of the Florida Medical Association, we, have facilitated and perpetuated an injustice (i.e., moratorium on payments prior to Peer Review) rather than vigorously protesting it.

If the pages of the Florida Medical Journal are to record apologia for federal injustices under the name of a most respected leader of Florida Medical Association and the Florida Blue Shield, if this is to happen,—is not organized medicine and our future in great jeopardy?

Everett Shocket, M.D.
Miami Beach

This letter was referred to the author of the article in question.

Dr. Shockets' letter was referred to the author of the article in question, who offers the following reply.

Dear Everett:

I appreciate very much your letter and the accompanying "Letter to the Editor" protesting my article "The Many Myths of Medicare." All I have received so far have been complimentary letters of agreement and I am realistic enough to know that nothing is that good. You have proved my faith in human nature.

I am astonished, however, at your reasons for disapproval. Since receiving your letter I have reread the article and how anybody could regard it as an apology for SSA or as approval of their actions is a mystery to me. My attitude toward Medicare was summarized in the last paragraph of my article. I do *not* approve of the reduction of the percentile from 83 to 75 so long as the government purports to pay usual and customary fees, which it does not and which I thought my article made clear. I am realistic enough to recognize that this was inevitable and to expect further attempts to reduce costs by curtailing physicians' fees.

I refuse to accept government control of my own practice; therefore, I do not accept Medicare assignments and I have no personal interest in what percentile the government pays. I deal directly with my patients, help them collect any benefits to which they are entitled and then have them deal directly with the government. This way my patients always know that I am working for them and not for the government.

As your representative on the Blue Shield Board of Directors, I am concerned myself in behalf of those doctors who, in my opinion misguidedly, accept assignments by protesting vigorously any and all unilateral action by SSA.

Insofar as Myth #8 is concerned, again I am amazed that you could conclude that my explanation of *why* SSA has stopped payments to certain doctors to being *approval* of their so doing. I am convinced that this action is illegal and I hope that some doctor whose payments have been suspended will sue SSA, then maybe the air will be cleared. You may be interested in knowing that because of the continued vigorous protest by Blue Shield it now appears that this ruling will be significantly softened, which will help until the whole business is tested in court.

There have been some doctors who have taken Medicare as an invitation to larceny. We do our profession a grave disservice to pretend that everyone with an M.D. degree is an Honest John. As a taxpayer, I would object strenuously if the government took no action to conserve my hard-earned money from rank misuse as well as from fraud whether it be in buying napalm, shoes, or medical services. Such cases have occurred here in Florida and can be readily documented. There is one of two ways that the government can exercise some control over costs: by adopting a fixed fee schedule or by paying a reasonable approximation of usual and customary fees with peer review of the unusual. The medical profession has almost unanimously rejected the idea of a fixed fee schedule. Since we have insisted on the usual and customary fee concept, we have to accept the responsibility for determining what that is. This means peer review, which, incidentally, the law requires. It is merely a matter of who does it; a government employee or our fellow practitioners. I am willing to oppose but not just for opposition's sake, and I would like to offer some better alternative to that which I oppose. I am open to suggestions.

May I invite you to reread the article. You somehow missed the point I had in writing it; to give information about a frequently misunderstood gigantic federal bureaucracy, *not* to indicate approval of how it operates.

I do appreciate your comments. I feel that there is a big communication gap somewhere along the line and only by openly discussing our differences, both real and imaginary, can we understand each other.

Robert E. Zellner, M.D.
Orlando

To the Editor:

Two articles published in recent issues of the Journal of the Florida Medical Association have highlighted problems that specialists have had in dealing with Medicare. On the "President's Page" of the January issue of 1971 appears the statement, "Florida Medicine had another governmental edict shoved down its throat a few weeks ago. SSA told Blue Shield they must start paying on a dual fee basis. The FMA policy on the subject has been clear for many years; FMA opposes a dual fee schedule." The other article of interest was "The Many Myths of Medicare" by Dr. Robert Zellner in the March 1971 issue of the Journal. Dr. Zellner states, "The Medicare law from the beginning has required that, where feasible, specialists' fees be taken into consideration separately in establishing profiles for establishing Medicare allowances. Recently, Blue Shield was directed to implement this requirement. The FMA,

Blue Shield and numerous other medical organizations have rejected the idea of dual fee schedules."

I must agree that both of these articles are correct in stating that a dual fee schedule is undesirable. In my opinion, the reason for this is that *any* fee schedule is undesirable. Certainly, our experiences with the Florida Industrial Commission would bear this out, and we should continue to resist fee schedules in general; however, there is another aspect to the problem which has been too long ignored by the Florida Medical Association. I am a specialist, and patients come to me *because* I am a specialist. As such, I have spent many more years in acquiring special knowledge and skills, I have a greater depth and breadth of experience, and I devote more time to each individual patient than the nonspecialist. For these reasons, I believe I should receive a higher fee for a particular service than the nonspecialist receives for that service. Furthermore, the Medicare law provides for higher fees for specialists. Yet specialists have been unable to induce Blue Shield to follow the law and pay their fees because representatives of their own association have gone out of their way to interfere. The Blue Shield Board and the officers of the Florida Medical Association have done a grave disservice to the very large number of medical and surgical specialists practicing in Florida.

RALPH SLONIM, M.D.
MIAMI

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Soft Contact Lens Developed

Extensive research involving use of a new soft contact lens for correction of visual defects and treatment of eye diseases has won a national award for a University of Florida ophthalmologist.

Dr. Antonio R. Gasset, chief resident and instructor in ophthalmology with the University's College of Medicine, is first recipient of the award, to be given annually by the Rudolph Ellender Medical Foundation in Houma, La. for outstanding achievements in ophthalmology.

Cuban-born Dr. Gasset was cited particularly for his clinical research using a soft hydrophilic contact lens manufactured by the Griffin Company. In cooperation with Dr. Herbert E. Kaufman, professor and chairman of the department of ophthalmology, he has used the new lenses in treating numerous patients with a variety of corneal diseases.

Dr. Gasset reports the lenses have produced especially favorable results in erasing corneal irregularities and in treating bullous keratopathy, the drying syndromes, corneal ulcers and other corneal conditions needing protection.

"Used as bandages, the most remarkable and significant aspects of these lenses is their safety factor," reported Dr. Gasset. "For example, when placed on corneas with large bullae (blisters) and corneal swelling, the lenses do not break the bullae or cause ulceration. They can be worn on corneas with scars and other irregularities without causing ulceration, and are tolerated so well that many patients wear them 24 hours a day for weeks or months without removal," he added.

He noted that another remarkable property of this lens is its ability to take up medication and release it to the eye . . . providing a medicating effect over a long period of time. Studies to evaluate effects of the Griffin lens on the action of medication instilled into the eye were conducted in both animals and humans.

Manufactured from a hydrophilic plastic Bionite, the Griffin lens has a very high water content (about 55 per cent of its bodyweight) making it considerably heavier than the conventional hard lens. The almost instantaneous comfort of the softer lens makes trial lens-testing much easier than with the hard lenses.

Dr. Gasset has been associated with the University of Florida College of Medicine since 1968.

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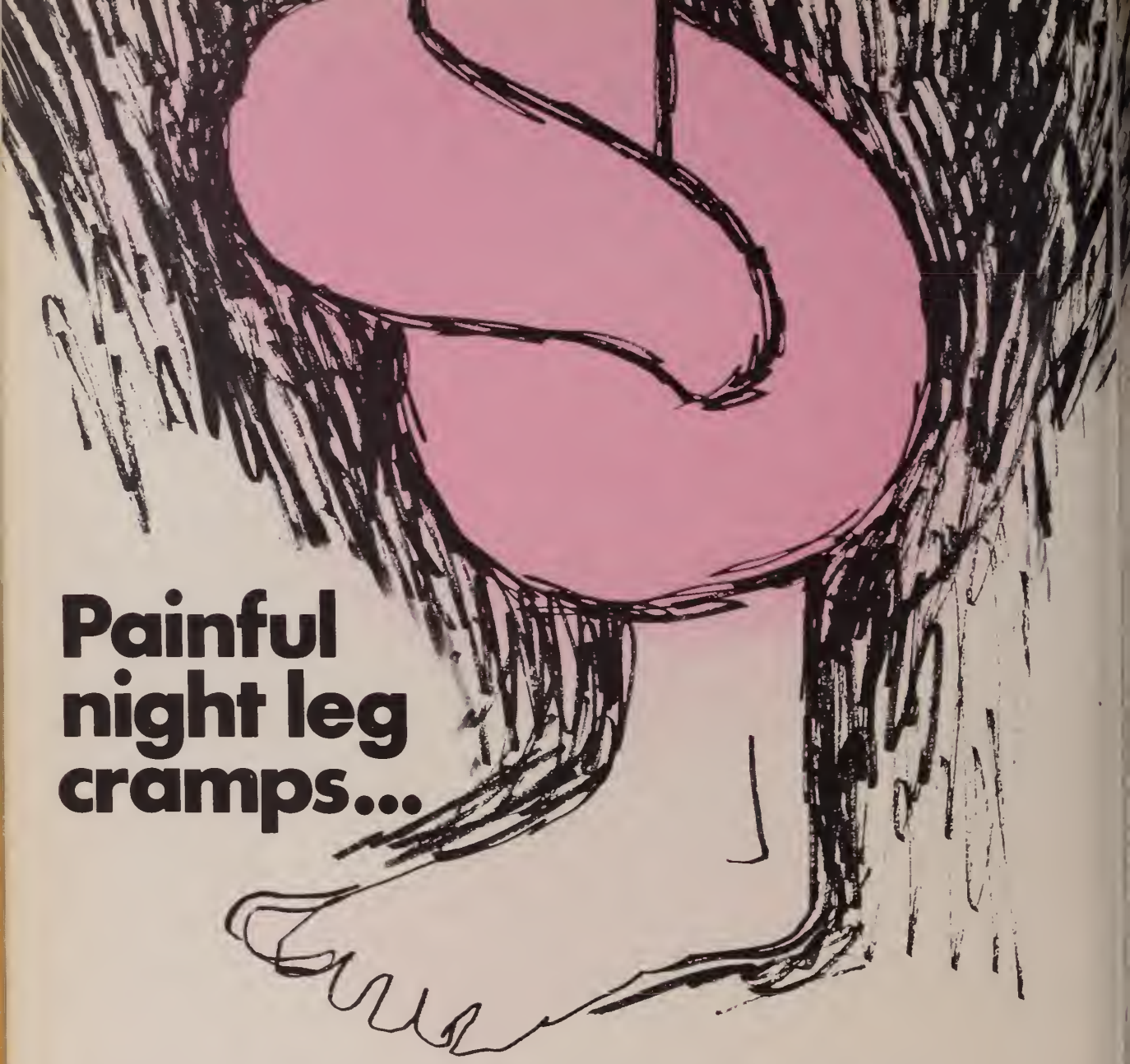
Warning: Although generally safer than the amphetamines, use with great caution in patients with severe hypertension or severe cardiovascular disease. Do not use during first trimester of pregnancy unless potential benefits outweigh potential risks.

Adverse Reactions: Rarely severe enough to require discontinuation of therapy, unpleasant symptoms with diethylpropion hydrochloride have been reported to occur in relatively low incidence. As is characteristic of sympathomimetic agents, it may occasionally cause *CNS effects* such as insomnia, nervousness, dizziness, anxiety, and jitteriness. In contrast, CNS depression has been reported. In a few epileptics an increase in convulsive episodes has been reported. Sympathomimetic *cardiovascular effects* reported include ones such as tachycardia, precordial pain, arrhythmia, palpitation, and increased blood pressure. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride; this was an isolated experience, which has not been reported by others. *Allergic phenomena* reported include such conditions as rash, urticaria, ecchymosis, and erythema. *Gastrointestinal effects* such as diarrhea, constipation, nausea, vomiting, and abdominal discomfort have been reported. Specific reports on the hematopoietic system include two each of bone marrow depression, agranulocytosis, and leukopenia. A variety of miscellaneous adverse reactions have been reported by physicians. These include complaints such as dry mouth, headache, dyspnea, menstrual upset, hair loss, muscle pain, decreased libido, dysuria, and polyuria.

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T-107/4/71/U S PATENT NO 3,001,910

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The Advantages and Needs for Peer Surveillance of Health Care

H. Phillip Hampton, M.D.

The adequacy of delivery and economy of expenditures for health care are the current national health issues demanding action by this session of Congress.

Total health care expenditures in 1970 of 70 billion dollars or 7% of the Gross National Product when compared to the 1950 expenditures of 12 billion dollars, or 4% of the Gross National Product, indicates the rapidly increasing demand and expenditures for modern health services.

In the past 20 years, the three major methods of financing personal health care have demonstrated distinct trends: (1) a steady decline in private postpayment (out-of-pocket); (2) an appreciable gain in private prepayment (health insurance) to 1965 and since then a relative decrease; (3) since 1965, a very rapid increase in public expenditures (tax funds). In 1970, the sources of payment for personal health care were approximately 40% tax funds, 20% private insurance and 40% out-of-pocket (Fig. 1).

Proposed Health Care Plans

Proposals for financing future health care systems emphasize either private health insurance or tax funding and range from: (1) achieving almost universal voluntary comprehensive health insurance through tax incentives for private funding of health insurance by business and individuals and using tax payment of premiums only for the poor to (2) a totally tax-supported and government supervised health care system for all.

The first proposal envisions building on and improving the present system of payments by private health insurance coverage for health care needs and an evolutionary adaptation of present health care delivery methods appropriate to community needs. The second proposal mandates a revolutionary change to total tax support for health care financing and government direction and supervision of delivery.

Those physicians who favor the public tax method of financing all future health care need do nothing but await congressional action and government direction of the health care delivery system. But, those physicians who are convinced that substantial private funding of comprehensive voluntary health insurance will provide the best national method for future support of health care delivery are logically obligated to cooperate in the development of alternative systems of health care delivery appropriate to community needs, and to participate in achieving truly effective peer surveillance. A health delivery system which leaves large segments of the population without adequate care will not be long endured and an uncontrolled financing method will not long survive.

Increasing Demand for Health Care

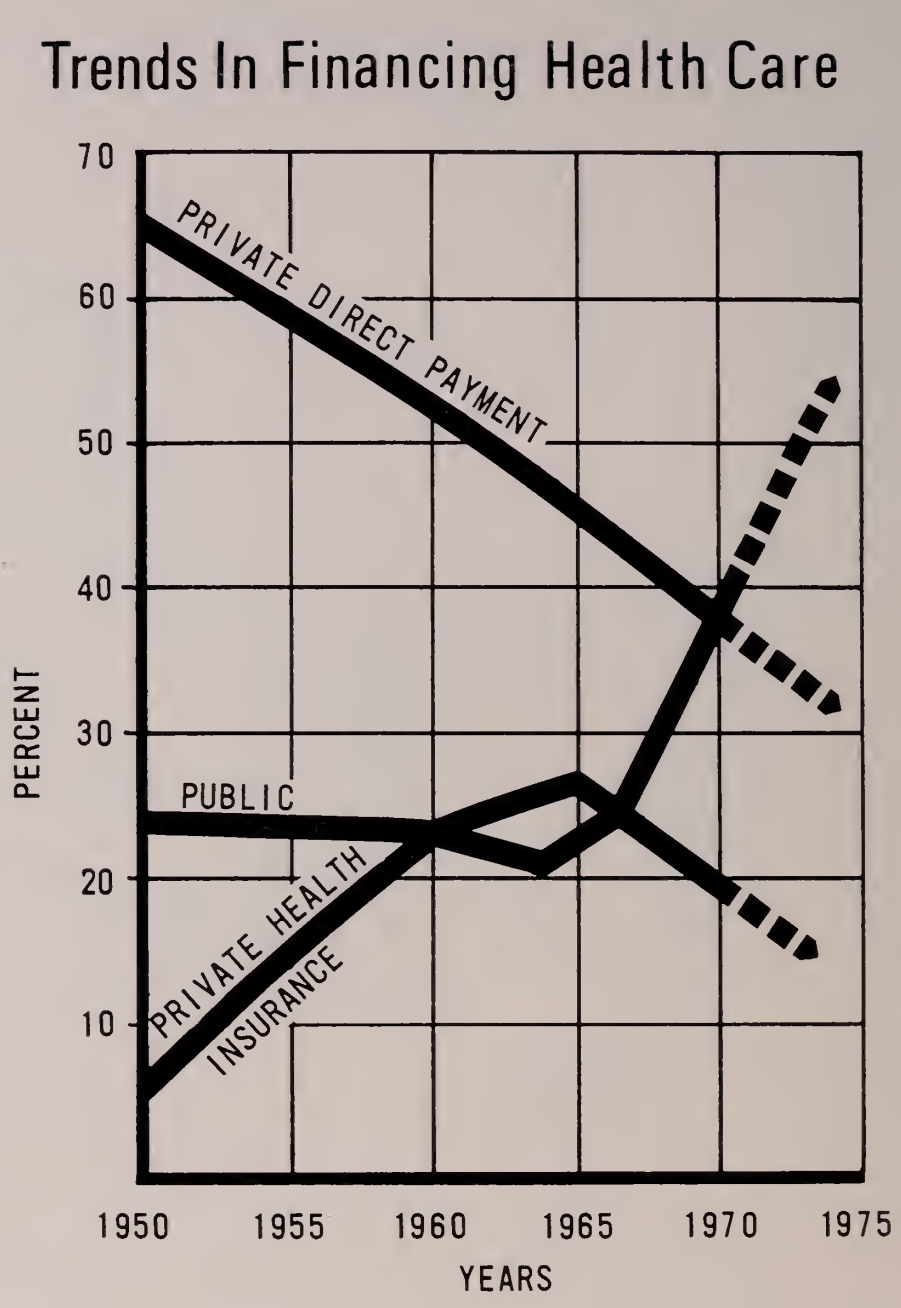
Recent scientific advances which dramatically improved the effectiveness of modern medical care, and the use of third parties to finance health care have contributed in large measure to the rapidly increasing demand and expenditures for health care.

In 1970, there were 1½ billion individual physician-patient encounters in the United States —40 million in Florida—and nationally over 30 million people were admitted to hospitals. In the same year over 3/5 of the costs of health care were paid by third parties and not directly by the patient. Over 95% of institutional admissions required submission of a detailed report to a third party for payment and almost 50% of physician-patient encounters required a detailed statement for payment.

Any future national system for the management of health care expenditures or surveillance of medical care delivery will require the recording and analysis of about 2 billion individual physician-patient encounters a year. A task of this magnitude can be accomplished only with systematic use of modern communication and electronic data processing methods.

Management of health care expenditures is a responsibility of the patient's financing or insuring

Presented before the Kansas Medical Association's Annual Meeting, May 12, 1971.



agent. Surveillance of quality and appropriateness of health care delivery is an obligation of physicians. Efficient management of financing and effective surveillance of delivery are essential requirements for success of a health care system financed through insurance and delivered by a variety of methods which will provide maximum opportunity for freedom of choice for both the patient and physician.

To accomplish this monumental task, we must develop a plan to improve the management of health insurance and the surveillance of medical care delivery designed to preserve and improve the availability of the basic unit of medical care—the individual patient-physician encounter.

Current Third Party Fiscal Management

The essential transaction of the basic medical care unit is based on the encounter agreement that physicians are responsible for providing services and patients are responsible to pay costs. Quality and propriety of medical services rendered have

traditionally been physician responsibilities and he has been obliged to keep medical encounter records.

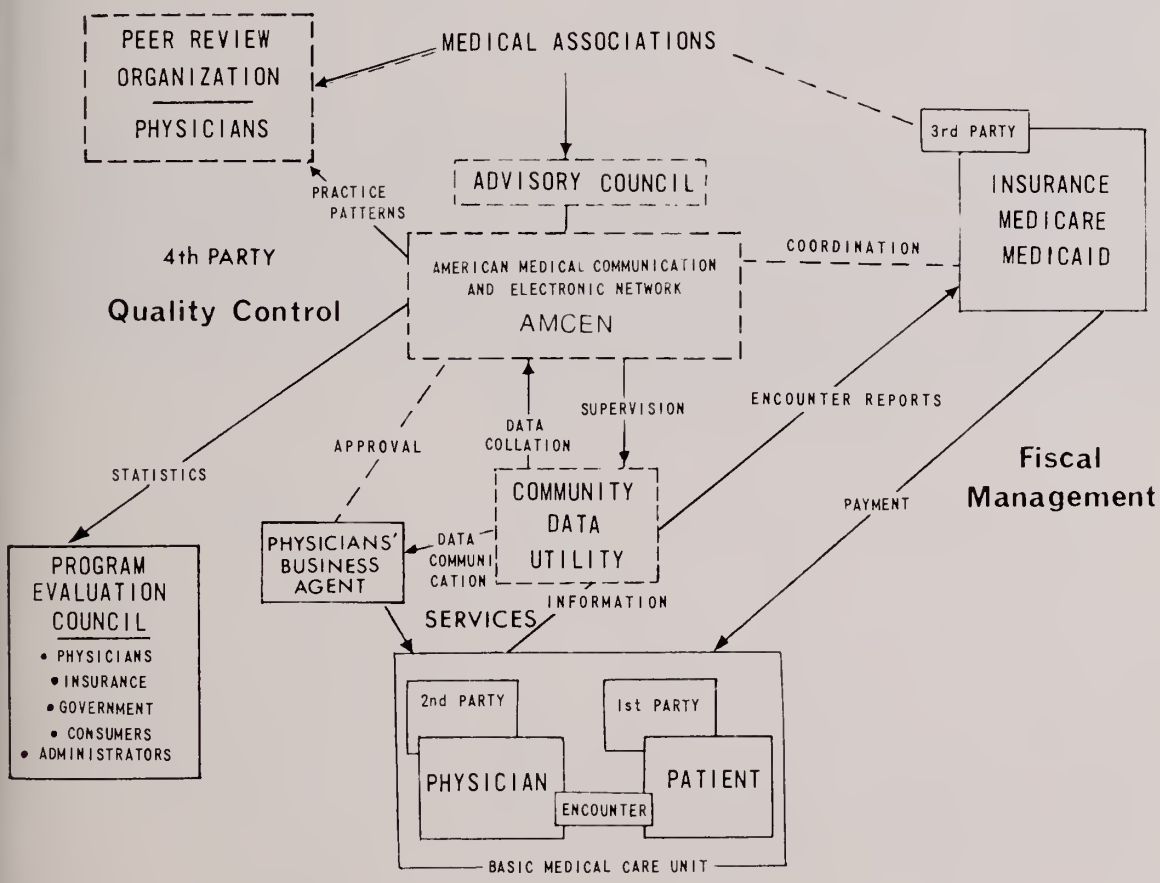
To aid the financing of modern health care, economic demand has created third party payment plans in the form of voluntary health insurance for the majority and tax supported health care programs for the poor, some chronically ill and the aged. Loose review and advisory arrangements for fiscal control and quality surveillance have developed between medical societies and third parties based upon traditional medical society efforts to foster quality in medical care (Fig. 2).

For fiscal management, now accomplished by individual claims review, third party payers have required more formal and detailed reports of their subscribers' encounters with physicians. Communication and processing of information has become an expensive and time-consuming chore for all concerned. Many physicians have found it necessary to employ business management agents of various kinds. Physicians are overwhelmed by multiple insurance forms and reports. Patients are bewildered by the paperwork required to receive health insurance benefits. Third party management is often haphazard and administrative costs vary from 10% to 30%* of expenditures; this amounts to a considerable portion of the 70 billion dollars spent for health care in 1970.

Legislation which has passed both houses of Congress will be enacted this year empowering the Secretary of Health, Education, and Welfare to appoint "review and evaluation councils" for health care financing and delivery for the purpose of achieving cost controls.

An acknowledged requirement for implementation of health care systems financed by insur-

*Recent information suggests that this range is more nearly between 5% and 50%.—the author.



Operational diagram of proposed "Fourth Party" national and state voluntary organization to develop a network of communications and electronic utilities for improved health insurance fiscal management and effective peer surveillance for quality control of medical care. "Program Evaluation Councils", if appointed by the Secretary of Health, Education and Welfare as authorized by HR1 would receive statistical information.

Figure 2

ance and delivered by a variety of methods is a more formal and effective application of traditional medical society surveillance for quality control through Peer Review Organizations.

Proposed "Fourth Party" For Quality Control

An organization structured to expedite the development of a management information system for medical care is required to relieve the cumbersome paper-form reporting of physician-patient encounters, to enable effective implementation of Peer Review Organizations and to aid efficient management of third party payments. In effect, it will create a "Fourth Party" for quality control needed to (1) maintain the functional integrity of the basic unit for personal medical care, (2) positively identify medical practices of high quality and efficiency, (3) reward them with relief from tedious paper work and by prompt payment methods and (4) facilitate alternative methods to finance and deliver medical care (Fig. 2).

Modern electronic data processing and communication methods are now available to relieve the current costly paper congestion of third party payment programs and to establish the medical data pool needed for effective peer surveillance.

Additional benefits would accrue to patient-subscribers in aiding them to receive prompt payment from their health insurance and to physicians in relief from the overwhelming paperwork involved with reporting to third parties.

The "Fourth Party" organization for medical care surveillance under practicing physician control is prerequisite to successful implementation of private insurance financing and of pleuralistic methods for delivery of medical care. It will aid practicing physicians to make their influence effective in the development of future health care systems. It can be the voluntary system by which the medical profession can cooperatively provide statistical information to the "Review and Evaluation Councils" to be appointed by the Secretary of Health, Education, and Welfare.

The obvious alternative to a voluntary "Fourth Party" organization will be for the Secretary's Councils to assume supervision of the entire health care information and control function.

Pilot projects are in progress to test the proposed "Fourth Party" approach for quality control under the advisory councils of medical societies cooperating with the "Third Party" for fiscal management and also providing services to aid the First and Second Parties—the patient and physician—of the basic health care unit to achieve more efficient and adequate health care. The pilot projects will be practical demonstrations of electronic data processing capabilities and of practicing physicians' willingness and ability to assume and fulfill responsibility for quality control of health care delivery.

Conclusion

Congress will decide the methods of financing future health care and will mandate fiscal controls. I firmly believe that only practicing physicians can provide effective quality controls and develop adequate health care delivery systems through their voluntary efforts.

A modern system for communication and electronic data processing of medical care delivery information is required for:

1. Expeditious reporting of patient-physician medical encounters;
2. Efficient management of health insurance to maintain fiscal control;
3. Effective peer surveillance to achieve quality control;
4. Aid in facilitating development of alternative financing and delivery methods of medical care responsive to community needs; and for
5. Information useful to physicians for exerting impelling influences on the evolutionary processes producing future health care systems.

Comments on Recommendations of the Task Force on Medicaid and Related Programs by Dr. Hampton were printed in the September 1970 issue of JFMA in which he objected to certain recommendations of the Task Force of which he was a member and concluded with the statement, "I support alternative recommendations more likely to achieve immediate and long range improvement in health care delivery, directed to stimulating the private medical sector in the development of methods for effective peer utilization review and quality control of health care. A well-organized medical care information system for peer utilization review in the private sector would provide a means of efficient management of public and private health insurance financing and a guide to facilitate the evolutionary adaptation of medical care delivery responsive to community needs."

▶ Dr. Hampton, 1 Davis Boulevard, Tampa 33606.

The actions of the official Tincture and Extract of Belladonna result chiefly from their Atropine content . . . conclude Goodman and Gilman

THE PHARMACOLOGICAL BASIS OF THERAPEUTICS
3rd Edition, page 522



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DOSAGE: One tablet or capsule after each meal to correct emotional stress and normalize gastric secretions. In treating peptic ulcer, doses at regular intervals up to eight (8) tablets or capsules per day to provide the proper gastric titer for healing. After ulcer has healed, one tablet or capsule after each meal to maintain a titer unfavorable to recurrence.

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WARNING: Do not give in advanced kidney or liver disease. PRECAUTIONS: Trocinate relaxes all smooth muscles. Large dosage or prolonged usage may cause feeling of weakness or can theoretically precipitate gall-bladder colic, due to relaxing the vascular and duct systems. Caution should be observed in patients with urinary bladder obstruction. DOSAGE: 400 mg. May be repeated in 4 hours. After relief, lengthen the dose frequency. (see side note)

NOTE: [illegible]

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MEETINGS

Approved by FMA Committee on Continuing Education

SEPTEMBER

20-25 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

OCTOBER

8- 9 Otolaryngology for the Family Physician, Sheraton-Four Ambassadors Hotel, Miami. For information: Fredric W. Pullen, M.D., P.O. Box 875, Biscayne Annex, Miami 33152.

11-15 Diagnosis of Cardiac Arrhythmias, Wolfson Auditorium, Mt. Sinai Hospital, Miami Beach. For information: Philip Samet, M.D., 4300 Alton Road, Miami Beach 33140.

NOVEMBER

19-20 Tenth Annual Physicians' Seminar on Respiratory Diseases and Workshop for Allied Health, Perdido Bay Inn & Golf Club, Pensacola. For information: Jay D. Williams Jr., M.D., Box 8127, Jacksonville 32211.

29-Dec. 4 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

DECEMBER

7-10 Clinical Nephrology and Heart Disease Seminar, Eden Roc Hotel, Miami Beach. For information: Mrs. Gwen Hendel, Mt. Sinai Hospital, 4300 Alton Rd., Miami Beach 33140.

13-18 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

Florida State Board of Medical Examiners:
July 25-27, 1971, Miami Beach
January 16-18, 1972, Tampa

For information: Mrs. Marjoriann Keebler, Assistant Director, Florida State Board of Medical Examiners, 2717 E. Oakland Pk. Blvd., Fort Lauderdale, Fla. 33306.

National and Regional Meetings Held in Florida

OCTOBER

4- 7 American Academy of Family Physicians, Miami Beach. Exec. Dir.: Mr. Mac F. Cahal, JD, Volker Blvd. at Brookside, Kansas City, Mo. 64112.

12-16 Congress of Neurological Surgeons, Americana Hotel, Bal Harbour. Sec.: Bernard S. Patrick, M.D., University Medical Center, 2500 N. State St., Jackson, Miss. 39216.

31-Nov. 3 Academy of Psychosomatic Medicine, 18th Annual Meeting, Colony Beach Club, Sarasota. Exec. Dir.: Adam J. Krakowski, M.D., 202A Cornelia St., Plattsburgh, New York 12901.

NOVEMBER

1- 4 Southern Medical Association, Miami Beach. Exec. Dir.: Mr. Robert F. Butts, 2601 Highland Ave., Birmingham, Ala. 35205.

2 George Papanicolaou Memorial Seminar in Gynecologic Pathology, Fontainebleau Hotel, Miami Beach. Dir.: George Ioannides, M.D., 1830 S.W. 99th Ave., Miami 33165.

4- 6 Southern Thoracic Surgical Association, Tampa. Sec.-Treas.: James W. Brooks, M.D., 1200 E. Broad St., Richmond, Va. 23219.

JANUARY

17-19 American College of Surgeons, Sectional Meeting. Sheraton-Four Ambassadors Hotel, Miami. Info. Communications Division, 55 E. Erie St., Chicago 60611.

APRIL

18-20 American Academy of Facial Plastic and Reconstructive Surgery, Hollywood Beach Hotel, Hollywood Beach. Sec.: Carl N. Patterson, M.D., 1110 W. Main St., Durham, North Carolina 27701.

18-19 American Broncho-Esophagological Association, Hollywood Beach Hotel, Hollywood. Walter H. Maloney, M.D., 2065 Adelbert Rd., Cleveland 44106.

Deaths

Chittenden, George E., Winter Park; born 1900; Indiana University, 1925; member AMA; died June 9, 1971.

Farrington, Robert F., Miami; born 1908; Harvard University, 1940; died December 27, 1970.

Hasty, Frederick E., Coral Gables; born 1888; Dade Medical School, 1917; member AMA; died March 18, 1971.

Martin, Richard A., Fort Lauderdale; born 1921; University of Pennsylvania, 1951; member AMA; died April 21, 1971.

Resnicoff, Max, Miami Beach; born 1894; New York University, 1917; member AMA; died February 7, 1971.

Sample, Adrian M. Jr., Fort Pierce; born 1902; Jefferson Medical College, 1928; member AMA; died April 27, 1971.

Schnauss, Fauntleroy H., Jacksonville; born 1907; University of Georgia Medical College, 1933; member AMA; died March 29, 1971.

Schumacher, Henry C., Gainesville; born 1893; St. Louis University, 1919; member AMA; died February 14, 1971.

Smoak, John E., Tampa; born 1882; University of South Carolina, 1907; member AMA; died June 28, 1970.

Van Landingham, William E., West Palm Beach; born 1879; Baltimore Medical College, 1905; member AMA; died June 19, 1971.

Wood, Edward W., Lake Worth; born 1899; Medical College of Virginia, 1926; member AMA; died March 18, 1971.

Hospital Accreditation Standards Published

The new *Accreditation Manual for Hospitals* is now available from the Joint Commission on Accreditation of Hospitals, according to an announcement by the Commission. As a result of the April 1 publication of the revised *Standards for Accreditation of Hospitals,* July 1, 1971, has been set as the date of their implementation as the basis for accreditation surveys.

The Commission began revision of the Standards in August 1966 with final approval by the Commission on Dec. 12, 1970.

Of particular interest to physicians are revised standards pertaining to hospital medical staff representation on governing boards and potential establishment of clinical departments of general or family practice.

As adopted by the JCAH, the standards on medical staff representation state that where legally permissible physicians on medical staffs shall be eligible for and should be included as full members on governing bodies.

The revised standards also state that medical staffs may establish clinical departments of general or family practice and assign responsibilities in keeping with functions desirable to meet organizational needs of the medical staff of the hospital, "including equal rights for representation on the executive committee of the medical staff."

They also state that "final responsibility for recommendations on clinical privileges and for review of cases shall, however, continue to reside in the applicable specialty departments."

In all, the manual includes 21 sections: an Introduction; an Administrative Policies section, outlining the accreditation program; a Glossary; a Preamble, describing patient's rights; sixteen sections of standards covering various aspects of the hospital's operation, and an Appendix, outlining the appeals mechanism.

Prices for the Manual, which has been published in two editions, are: $8.00 for the loose-leaf binder edition (includes a two-year updating service) and $2.25 each for one to five copies of the soft-cover, bound edition, $2.00 each for more than five copies. Order from JCAH, 645 North Michigan Ave., Chicago, Ill. 60611; tel. 312/642-6061.

Reprinted from the Wisconsin Medical Journal, May 1971.

General News

University of Florida Graduating Class 1971

The Doctor of Medicine degree was conferred on 62 young men and women during commencement exercises at the University of Florida College of Medicine in Gainesville on June 6. Fifty-one of the new physicians are Florida residents.

Twenty-two of the recent graduates will remain in Florida for their year of internship, while the others will take their first year of graduate training at military and civilian hospitals throughout the United States. American Samoa and France as well as the states of Georgia, Indiana, Illinois, Michigan, Pennsylvania, Tennessee and West Virginia were represented in the graduating class.

Health Director for Highlands County

Glenn V. Hough, M.D., of Akron, Ohio, has been employed as Health Director of Highlands County.

Dr. Hough will spend most of his working time in Highlands County but will serve in Glades County one day a week. The Highlands County post has been vacant for two years.

Physical Examinations for First Graders

The importance of physical examinations for first-grade students in Florida has been underscored by a Florida Medical Association committee. Problems related to the examination program were considered by the School Health Medical Advisory Committee to the Florida Department of Education and Division of Health during a meeting in Jacksonville on May 23. State law requires such examinations, but the Committee was informed that some counties, particularly those with inadequate numbers of physicians, have difficulty complying.

The Committee stated that each child must have a physical examination during the calendar year of his admission to school, and that group examinations should be conducted as near as possible to the opening of school.

Department of Community Health and Family Medicine Created

The Florida Board of Regents, responding to an amendment to the 1970 appropriations bill of the Legislature, has authorized the creation of a Department of Community Health and Family Medicine at the University of Florida College of Medicine in Gainesville.

The action makes way for further development of family medicine and community health educational programs of the college in the education of additional family physicians through a residency training program in family medicine and a continuing education curriculum.

Southeastern Regional Meeting of the ACP

The 1971 Southeastern regional meeting of the American College of Physicians will be held in Charleston, South Carolina, October 7-9. There will be two and one half days of internal medicine by faculty of the several medical schools of the Southeast.

American Board of Family Practice

Donald G. Nikolaus, M.D., of Dunedin, has successfully completed the requirements for certification by the American Board of Family Practice.

Dr. Papper to NIH Term

Emanuel M. Papper, M.D., Dean of the University of Miami School of Medicine, has been appointed to a four-year term on an advisory committee to the National Institutes of Health (NIH).

Dr. Papper will be a member of the General Research Support Program Advisory Committee. It advises the Division of Research Resources on the need for new institutional support mechanisms, helps to develop necessary guidelines and reviews support applications.

American Academy of Pediatrics

A versatile scientific program is being arranged for the 40th Annual Meeting of the American Academy of Pediatrics.

The sessions will be held in Chicago, at the Palmer House, October 16-21. The scientific program will be presented through seven symposia, 133 formal papers, 17 round tables, 18 seminars, and 12 motion picture films.

Additional information about the program may be obtained by contacting the American Academy of Pediatrics, 1801 Hinman Avenue, Evanston, Illinois 60204.

19th Annual Meeting of Tennessee Valley Medical Assembly

The Tennessee Valley Medical Assembly will meet for their 19th annual meeting at Read House, Chattanooga, Tennessee, October 11-12, 1971. For further information write Charles H. Alper, M.D., Chairman, 107 Interstate Building, Chattanooga, Tennessee 37402.

American Heart Association's Annual Session

The American Heart Association's 44th Annual Scientific Session begins Thursday morning, November 11 and continues through Sunday, November 14 in Convention Center, Anaheim, California. Programs on clinical cardiology and concurrent sessions on various phases of cardiovascular research and medicine will be featured. For further information contact your local Heart Associations or the AHA National Office, 44 East 23rd Street, New York, N. Y. 10010.

Certified by the American Board of Family Practice

Robb E. Ross, M.D., of New Port Richey, a member of the Pasco-Hernando-Citrus County Medical Society, has been certified by the American Board of Family Practice.

Herbert E. Brooks, M.D., of Bonifay, has been certified by the American Board of Family Practice. He is a member of the Panhandle County Medical Society.

Elected to the Board of Trustees of the AMA

Jere W. Annis, M.D., of Lakeland, a past president of the Florida Medical Association, has been elected to the Board of Trustees of the American Medical Association. Dr. Annis' election came during the 120th Annual Convention of the AMA in Atlantic City, N. J., in June.

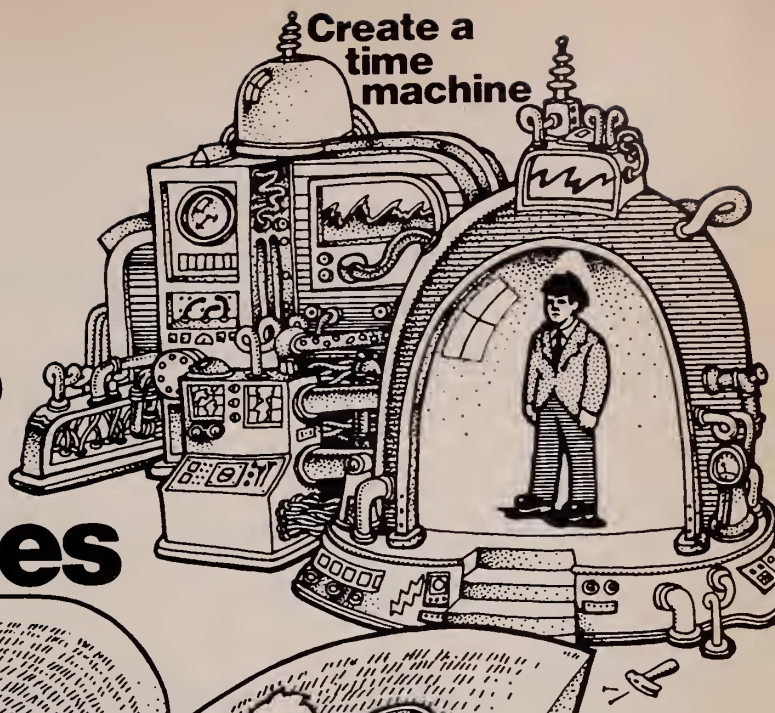
The AMA House of Delegates selected Dr. Annis to serve the one year remaining in the three-year term of C. A. (Carl) Hoffman, M.D., of Huntington, W. Va. Dr. Hoffman was elected to the office of President-Elect and subsequently resigned as trustee.

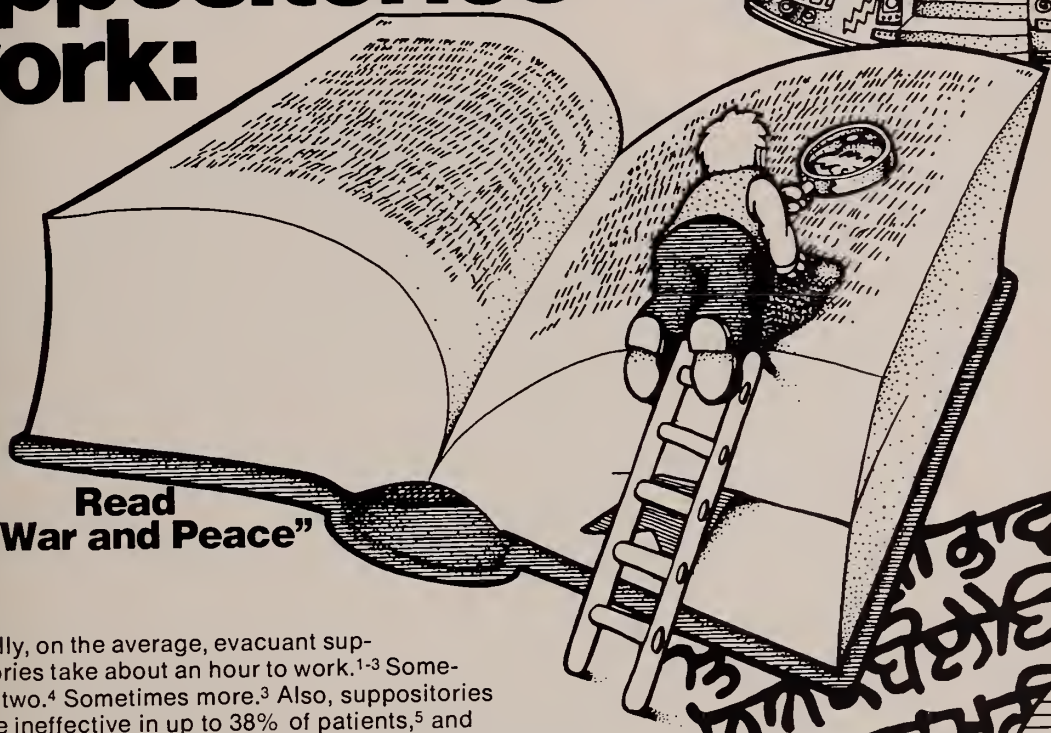
A native of Minneapolis, Minn., Dr. Annis has been a leader in organized medicine in Florida for many years. He has been a Delegate to the AMA, and in the FMA he has held office as President and as Chairman of the Judicial and Legislative Councils.

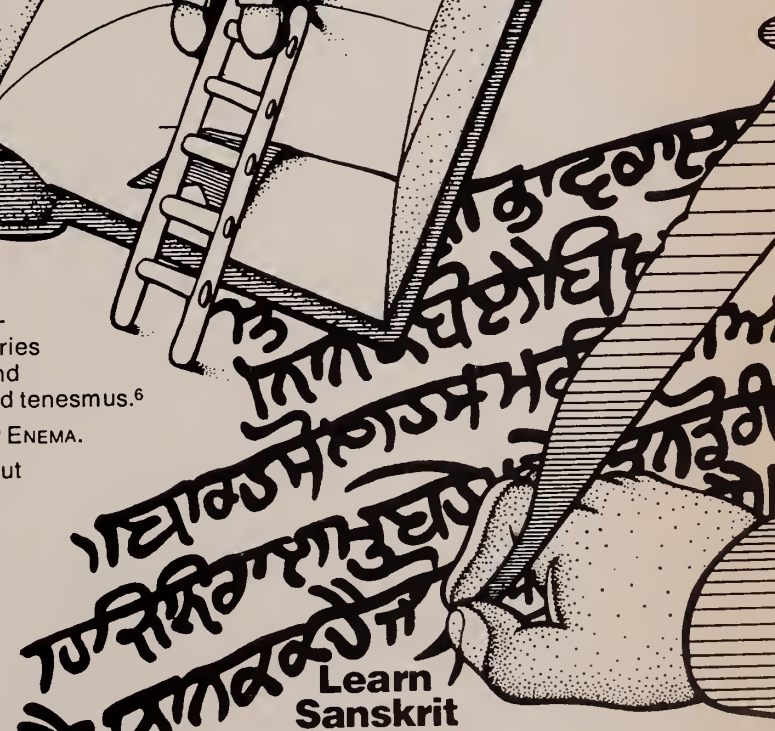
Fellow American College of Physicians

Jared C. Kniffen, M.D., of Gainesville, has been elected a Fellow of the American College of Physicians. Dr. Kniffen is an Associate Professor of Internal Medicine at the University of Florida College of Medicine.

What to do until suppositories work:







Actually, on the average, evacuant suppositories take about an hour to work.[1-3] Sometimes two.[4] Sometimes more.[3] Also, suppositories can be ineffective in up to 38% of patients,[5] and not infrequently produce smarting, burning and tenesmus.[6]

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Caution: Do not administer to children under two years of age unless directed by a physician.

References: 1. Blumberg, N.: Med Times 91:45, Jan., 1963. 2. Sweeney, W. J., III: Amer J Obstet Gynec 85:908, Apr. 1, 1963. 3. Weinsaft, P.: J Amer Geriat Soc 12:295, Mar., 1964. 4. Baydoun, A. B.: Amer J Obstet Gynec 85:905, Apr. 1, 1963. 5. Feder, I. A., Flores, A. and Weiss, J.: Amer J Gastroent 33:366, Mar., 1960. 6. Smith, J. J. and Schwartz, E. D.: Western J Surg 72:177, May-June, 1964.

Call it what you will, it may be premalignant

Before

3/29/67 Before therapy with 5%-FU cream. Patient P. T. shows a moderately severe solar keratotic involvement. Note residual scarring from the previous cryosurgical and electrosurgical procedures on forehead and ridge of nose adjacent to periauricular area.

After

6/12/67 Seven weeks after cessation of therapy. Reactions have subsided. Residual scarring is not seen except for that due to prior surgery. Inflammation has disappeared and face is clear of keratotic lesions.



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nd Efudex® (fluorouracil) 5% cream can resolve it.

it actinic, solar or senile keratoses, y regard it as "precancerous."[1,2]

al fluorouracil, considered by some dermatologists to be a major ice in the treatment of multiple solar keratoses,[3,4] offers the physi- relatively inexpensive alternative to cryosurgery, electrodesic- and cold knife surgery. Of the topical fluorouracils available, only ex offers 2% and 5% solution and 5% cream formulations—formula- that have proved effective in the treatment of these mutliple lesions.

al duration of therapy, 2 to 4 weeks.

es showed that with the 2% and 5% Efudex preparations, the usual ion of therapy was only 2 to 4 weeks.[5] Other studies with topical uracil revealed that when concentrations of less than 2% were significant numbers of lesions recurred.[6]

ats the lesions you can't see, too.

erous lesions, not apparent prior to 2% and 5% Efudex therapy, fested themselves by definite reactions, while intervening skin ined relatively unaffected.[5] The early eradication of these subclini- sions (which may otherwise have undergone further progression) ably accounts for the reduced incidence of future solar keratoses in nts treated with topical fluorouracil—especially with 5% ntrations.[6]

v to identify solar keratoses.

cally, the lesion—a flat or slightly elevated brown to red-brown le—is dry, rough, adherent and sharply defined. Multiple lesions he rule.

dictable therapeutic response.

response to a typical course of Efudex therapy is usually acteristic and predictable. After 3 or 4 days of treatment, erythema ns to appear in the area of keratoses. This is followed by a moderate tense inflammatory response, scaling and occasionally moderate lerness or pain. The height of this response generally occurs two ks after the start of therapy and then begins to subside as treatment opped. Within two weeks of discontinuing medication, the mmation is usually gone. Lesions that do not respond should iopsied.

rences: 1. Allen, A. C.: *The Skin, A Clinicopathological Treatise*, ed. 2, New York, e & Stratton, 1967, p. 842. 2. Dillaha, C. J.; Jansen, G. T, and Honeycutt, W. M.: atment of Actinic Keratoses with Topical Fluorouracil," in Waisman, M. (ed.): *maceutical Therapeutics in Dermatology*, Springfield, Ill., Charles C Thomas, 1968, . 3. Belisario, J. C.: *Cutis, 6*:293, 1970. 4. Sams, W. M.: *Arch. Derm., 97*:14, 1968. ta on file, Hoffmann-La Roche Inc., Nutley, New Jersey. 6. Williams, A. C., and , E.: *Cancer, 25*:450, 1970.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Multiple actinic or solar keratoses.

Contraindications: Patients with known hypersensitivity to any of its components.

Warnings: If occlusive dressing used, may increase inflammatory reactions in adjacent normal skin. Avoid prolonged exposure to ultraviolet rays. Safe use in pregnancy not established.

Precautions: If applied with fingers, wash hands immediately. Apply with care near eyes, nose and mouth. Lesions failing to respond or recurring should be biopsied.

Adverse Reactions: Local—pain, pruritus, hyperpigmentation and burning at application site most frequent; also dermatitis, scarring, soreness and tenderness. Also reported—insomnia, stomatitis, suppuration, scaling, swelling, irritability, medicinal taste, photosensitivity, lacrimation, leukocytosis, thrombocytopenia, toxic granulation and eosinophilia.

Dosage and Administration: Apply sufficient quantity to cover lesion twice daily with nonmetal applicator or suitable glove. Usual duration of therapy is 2 to 4 weeks.

How Supplied: Solution, 10-ml drop dispensers—containing 2% or 5% fluorouracil on a weight/weight basis, compounded with propylene glycol, tris(hydroxymethyl)aminomethane, hydroxypropyl cellulose, parabens (methyl and propyl) and disodium edetate.

Cream, 25-Gm tubes—containing 5% fluorouracil in a vanishing cream base consisting of white petrolatum, stearyl alcohol, propylene glycol, polysorbate 60 and parabens (methyl and propyl).



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ORGANIZATION

Committee on Continuing Education

The role of the community hospital in continuing education was taken up during a recent meetin of the Florida Medical Association's Committee on Continuing Education.

The Committee decided to investigate the possibility of establishing a state level accreditatio program for the American Medical Association Physician's Recognition Award.



1971 Hippocratic Award for Teaching Excellence

The University of Florida College of Medicine Class of 1971 awarded Dr. Gerold L. Schiebler the 1971 Hippocratic Awa d for Teaching Excellence. Mark Ettinger (right), class president from Kissimmee made the award by saying "they wished to recognize Dr. Schiebler for his zealous attention to the Hippocratic ideals of teaching—creative, forceful and inspirational instruction, thereby bringing enrichment to the minds of the students, excellence to his profession and distinction to himself."

Dr. Schiebler (left), is professor and chairman of the Department of Pediatrics at the University and was chosen by the class of new physicians to receive the award as the medical teacher who, in their opinion, best exemplifies the classic ideals of Hippocrates, the father of medicine. He is the third professor so honored since 1969 by the graduating classes of the College of Medicine. He is well known all over the state for his role in organized medicine and continuing postgraduate medical education. He is also a member of the consulting editorial staff of the Florida Medical Journal.

Florida Committee on Rural Health

A meeting of the Florida Committee on Rural Health was held at the University of Florida on May 27, with the chairman, Arthur M. Riley, D.D.S., presiding.

Edmund F. Ackell, M.D., Provost of the J. Hillis Miller Health Center at the University of Florida, led a discussion of his institution's activities, stating that a high percentage of physicians taking residency training at the Health Center remain in Florida to practice. He described the University of Florida's affiliations with the Pensacola Educational Program, the Jacksonville Hospitals Educational Program, and the Halifax District Hospital Family Practice Program.

The Committee discussed the problem of maldistribution of health personnel in Florida. As to the question of how rural areas might be made more attractive to physicians and dentists, it was suggested that outlying rural hospitals should be encouraged to affiliate with larger hospitals and university centers.

Communications With Florida's Medical Students

Various ways of establishing lines of communications with Florida's medical students were discussed recently at the first meeting of a new committee of the Florida Medical Association.

Billy Brashear, M.D., of Gainesville, presided at the meeting of the Ad Hoc Committee on Liaison with Medical Students and ways in which some of the component medical societies keep in touch with their medical students were discussed and ways considered which the Committee itself may maintain contact.

Committee members spoke of a need for some type of publication to be prepared for students describing the positive policies and programs of organized medicine. They also favored inviting a representaive of the third-year class of each medical school in Florida to meet with the Committee.

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Florida Organizations of Medical Interest
Meetings and Officers

Organization	President	Secretary	Annual Meeting
Medical Association	Floyd K. Hurt, Jacksonville	James W. Walker, Jacksonville	Hollywood, May 3-7, 1972
Specialty Societies			
ociety	Roger A. Lipton, Fort Lauderdale	Albert M. Ziffer, Winter Park	
logists, Soc. of	Leo C. Nickell, Orlando	George T. Edwards, Ft. Lauderdale	
s., Am. Coll., Fla. Chap.	Richard H. Blank, Tampa	Eugene J. Sayfie, Miami	
gy Society	A. Robert Goddard, Coral Gables	Walter H. Johnson, Clearwater	
y Physicians, Fla.			
Am. Coll.	William T. Haeck, Jacksonville	David O. Westmark, St. Petersburg	
rologic Society	James H. Johnson, Lakeland	James L. Borland Jr., Jacksonville	
Practice, Academy	Edward W. Stoner, Oviedo	Joseph P. Hendrix, Port St. Joe	
Medicine	F. Norman Vickers, Pensacola	Victor H. Knight Jr., Tampa	
, Florida Soc.	James B. Perry, Ft. Lauderdale	Jacob Green, Jacksonville	
ical Society	Howard C. Chandler, Jacksonville	Robert S. Tolmach, Miami	
ynec. Society	Howard C. Duckett, Jacksonville	Henry L. Wright, Tampa	
ology Society	Charles F. McCrory, Jacksonville	Curtis D. Benton Jr., Ft. Lauderdale	
c Society	Albert A. Wilson, Tampa	Robert E. Ingersoll, Hollywood	
ology Society	J. Ryan Chandler, Miami	Fred W. Pullen II, Miami Shores	
t Society	Alfred L. Lewis Jr., Tallahassee	William R. Beach III, Orlando	
Society	John C. Moore Jr., Lakeland	Bernard F. O'Hara, W. P. Beach	
Surgeons, Fla. Chap.	Michael M. Gilbert, Miami	H. Warner Webb, Jacksonville	
d. & Rehab., Fla. Soc.	Alan E. Van Sant, Tampa	G. A. Cunningham III, Palm Beach	
Reconstr. Surgery	William G. Taylor, Tampa	Dorthea Weybright, W. P. Beach	
e Medicine, Fla. Soc.	Joseph A. Baird, Bradley	R. Chris Brown, Largo	
c Society	Thomas S. Gowin, Coral Gables	Manuel L. Carbonell, Miami	
c Society	H. Clark Adair, Arcadia	Merton L. Ekwall, Tallahassee	
cal Society	Robert H. Nickau, W. Palm Beach	Arthur R. Miller, Miami Beach	
Am. Coll., Fla. Chap.	Thad Moseley, Jacksonville	David S. Hubbell, St. Petersburg	
Gen., Fla. Assn.	Walter Rautenstrauch Jr., St. Petersburg	George H. Welch Jr., St. Petersburg	
Int. Coll., Fla. Chap.	Everett Shocket, Miami Beach	Glenn H. Heller, Miami Beach	
Thoracic, Fla. Soc.	Carlos R. Lombardo, Miami	Thomas M. McNeill, Orlando	
l Society	Curtis W. Bowman, St. P'burg	John I. Williams, Fort Lauderdale	
Cancer Society, Div.	Joseph T. Jana Jr., M.D., Miami	Mrs. Ruth Fillingim, Miami	Miami, October 23, 1971
Foundation, Chap.	Mr. William H. Namack III, Bradenton	Mrs. George Carter, Pensacola	Orlando, May 1972
nks, Association	Frank C. Coleman, M.D., Tampa	Mrs. Alma Del Valle, Tampa	Disney World, May 5-7, 1972
ld of Florida, Inc.	Robert E. Zellner, M.D., Orlando	W. Dotson Wells, M.D., Fort Lauderdale	Hollywood, May 3-7, 1972
Medical Examiners	John E. Orebaugh, M.D. St. Petersburg	I. Champneys Taylor, M.D., Jacksonville	Tampa, Jan. 16-18, 1972
Children & Adults, Soc.	William J. Hutchinson, M.D. Tallahassee	Mr. M. Lisle Reese, Orlando	Pensacola, October 8-9, 1971
Association	George P. Heffner, M.D. Fort Lauderdale	Mr. Dick Johnson, Miami	St. Petersburg, Oct. 8-10, '71
ndustrial Medical Assn.	Terry F. Tanner, M.D., St. P'burg	Joseph A. Baird, M.D., Bradley	Winter Park, Oct. 15-16, '71
sociation	Robert E. Grogan, M.D., Jupiter	Mr. Wilbur H. Shorts, Jacksonville	West Palm Beach, May 1972
ealth Assn. of Fla., Inc.	Mr. Dean Rieves, Ft. Myers	Rev. Warren Wall, Avon Park	Palm Beach, October 1971
n of Blindness, Soc.	Mr. John D. Crannell, Tampa	Miss Doris McCullough, Tampa	Tampa, January 1972
ealth Association	Mr. B. G. Tennant, Pensacola	Miss Betty Thalheimer, J'ville	Miami Beach, September 29-October 1, 1971
Children, Association	Mrs. Dolores Norley, W. P. Beach	Mr. Leonard Stafford, Pensacola	Palm Beach, Sept. 10-11, '71
Society	Richard G. Connar, M.D., Tampa	Mr. Albert P. Foster, Jacksonville	Daytona Beach, April 21-22, 1972
sis & Res. Dis. Assn.	Mr. Charles W. Lantz, Hollywood	Mrs. Richard D. Malchon, St. Petersburg	Daytona Beach, April 21-22, 1972
Auxiliary to FMA	Mrs. Wesley S. Nock, Coral Gables	Mrs. R. B. Moore Jr., W. P. B.	Hollywood, May 3-7, 1972

(Most Specialty Group meetings are scheduled at the time of the annual meeting of the Association)

Classified Ads

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GP WANTED for group practice in Central Florida. Florida license required. Immediate opening. Write C-506, P.O. Box 2411, Jacksonville, Florida 32203.

Specialists

PSYCHIATRIST as associate to well established psychiatrist, Broward County. Handsome new medical building adjacent major area hospital. Excellent opportunity. Contact M. M. Sylvan, M.D. (305) 525-6044.

INTERNIST, UROLOGIST, GP's.: Outstanding opportunities in progressive nonurban community serving 20,000. Write John H. Parker, M.D., Chief of Staff, Doctors Memorial Hospital, Perry, Florida 32347.

ORTHOPAEDIC SURGEON: Certified or eligible as third man with two congenial orthopaedic surgeons in Lakeland, Florida. Write: Murphy & von Paleske, M.D., P.A., 1243 Lakeland Hills Boulevard, Lakeland, Florida 33801. Telephone (814) 688-8401.

RADIOLOGIST WANTED: Must be board certified, for 55-bed accredited community hospital, in expansion to 100 beds, Brooksville, Florida. Please contact Dr. J. C. Ajac, Radiologist at (904) 796-3507 or (904) 796-9636.

OPPORTUNITY FOR INTERNIST: Board certified or eligible, interested in cardiology. Town 11,000 service area 40,000 in south Alabama. Modern 86-bed (JCAH) general hospital with 8-bed combination intensive and coronary care unit under construction. Seven G.P.s, certified surgeon, radiologist, excellent school system. Contact B. J. Griffin, Adm., D. W. McMillan Memorial Hospital, Brewton, Ala. 36426.

PSYCHIATRIST WANTED as associate. Florida license. Board certified or eligible. General psychiatry and psychotherapy. Emphasis on professional competence and service to medical colleagues. This is a family-oriented practice (yours and the patients') eclectic, conservative. Write: Norbert W. Skaja, M.D. 4800 Northeast 20th Terrace, Fort Lauderdale, Florida 33308.

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WANTED: General surgeon, thoracic and vascular to associate with another surgeon doing the same practice in Orlando, Florida. Write C-997, P.O. Box 2411, Jacksonville, Florida 32203.

GENERAL SURGEON, UROLOGIST, INTERNIST wanted to join a multi-specialist group, specialist-oriented. Excellent facilities, fee for service basis. Financial arrangements open. All the above specialties are represented. Contact Dr. Tim N. Howell, Gessler Clinic, Winter Haven, Florida 33880.

INTERNIST WANTED: Board eligible or certified, preferably with subspecialty, interest in hematology and/or cardiology to join fluorishing practice in Fort Lauderdale area. Excellent salary and fringe benefits first year, leading to association. Must have Florida license. Please phone (305) 565-6434.

Miscellaneous

WANTED IMMEDIATELY: Private emergency room physician. Corporate group needs fifth physician in teaching hospital, Orlando, Florida. Prefer GP. Florida license required. Contact Bruce S. Webster, M.D. (305) 647-5728 or Robert Gay, M.D. (305) 422-0159.

PHYSICIANS NEEDED: Tallahassee, Leon County, Northwest. General practitioners, internists and pediatricians in particular. Inquiries regarding practice in this community can be forwarded to J. Orson Smith Jr., M. D., Chairman, Physician Procurement Committee, 1433 Miccosukee Rd., Tallahassee, Fla. 32303. Phone (904) 877-1145.

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WANTED: Associate to share office space in central Florida city. Can be any specialty or general practitioner. Write C-996, P.O. Box 2411, Jacksonville, Florida 32203.

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URGENT—Partner to share expanding practice (GP & OB). Excellent opportunity to right young man with Florida license. Salary first 6-12 months, then partnership. Lovely small Central Florida community close to Orlando and new Disney World. GP area with 155 bed hospital nearby and ability to advance surgical privileges. Phone: (904) 383-3767 or (904) 383-3143. Contact Randall B. Whitney, M.D., 408 Highway 19-Alt., Mount Dora, Florida 32757.

situations wanted

PATHOLOGIST: Board certified in clinical and anatomical pathology, age 39, native U.S., Florida resident, university trained, experienced. Write C-993, P.O. Box 2411, Jacksonville, Florida 32203.

PEDIATRIC ASSOCIATION DESIRED. Florida licensed, age 30. Part I diplomate boards. Army discharge, September 13, 1971. Write Dr. Alan B. Cohen, U.S.A.H., Redstone Arsenal, Huntsville, Alabama 35809.

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SITUATION WANTED: 40 year old General Practitioner with 15 years' experience in own private practice desires association with, or purchase of private and/or industrial practice in Miami or Dade County area. Would also consider group association. Write C-983, P.O. Box 2411, Jacksonville, Florida 32203.

GENERAL PRACTITIONER: Florida license, seeks position in industrial medicine, public health or association with individual or group. Broward County preferably. Write Box 356, Hallandale, Florida 33009.

CLINICAL CHEMIST: Postdoctoral experience in a major hospital, desires to join a group of clinicians (to perform 30-100 tests a day) or work in medium-sized hospital. Write C-507, P.O. Box 2411, Jacksonville, Florida 32203.

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FOR SALE: Five room, red brick, medical office building situated on large, landscaped lot in Jacksonville. Office fully equipped. Good location on main thoroughfare in well populated area. Ample parking facilities. For further information, telephone (904) 389-0552.

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DOCTOR'S OFFICES FOR SALE: Near Broward General in Fort Laude dale. Four doctors have successfully practiced in this building for 12 years. Price $39 500, terms. Call Margaret Jelstrom Associate, 523-0924. Or call Laura Wood Realty, Inc., 309 S.E. 9th Ave., Fort Lauderdale, Florida 33301. Phone 524-2221.

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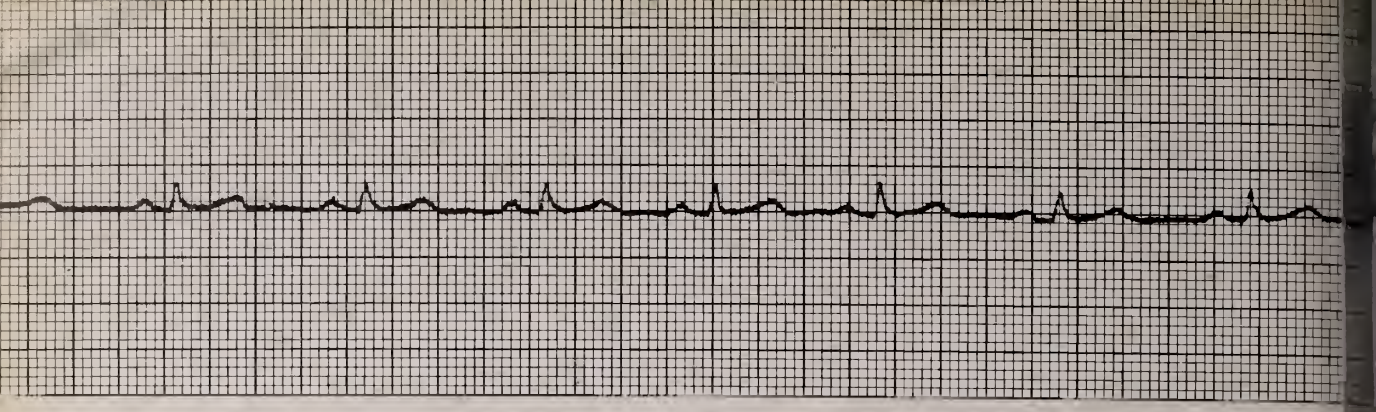
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Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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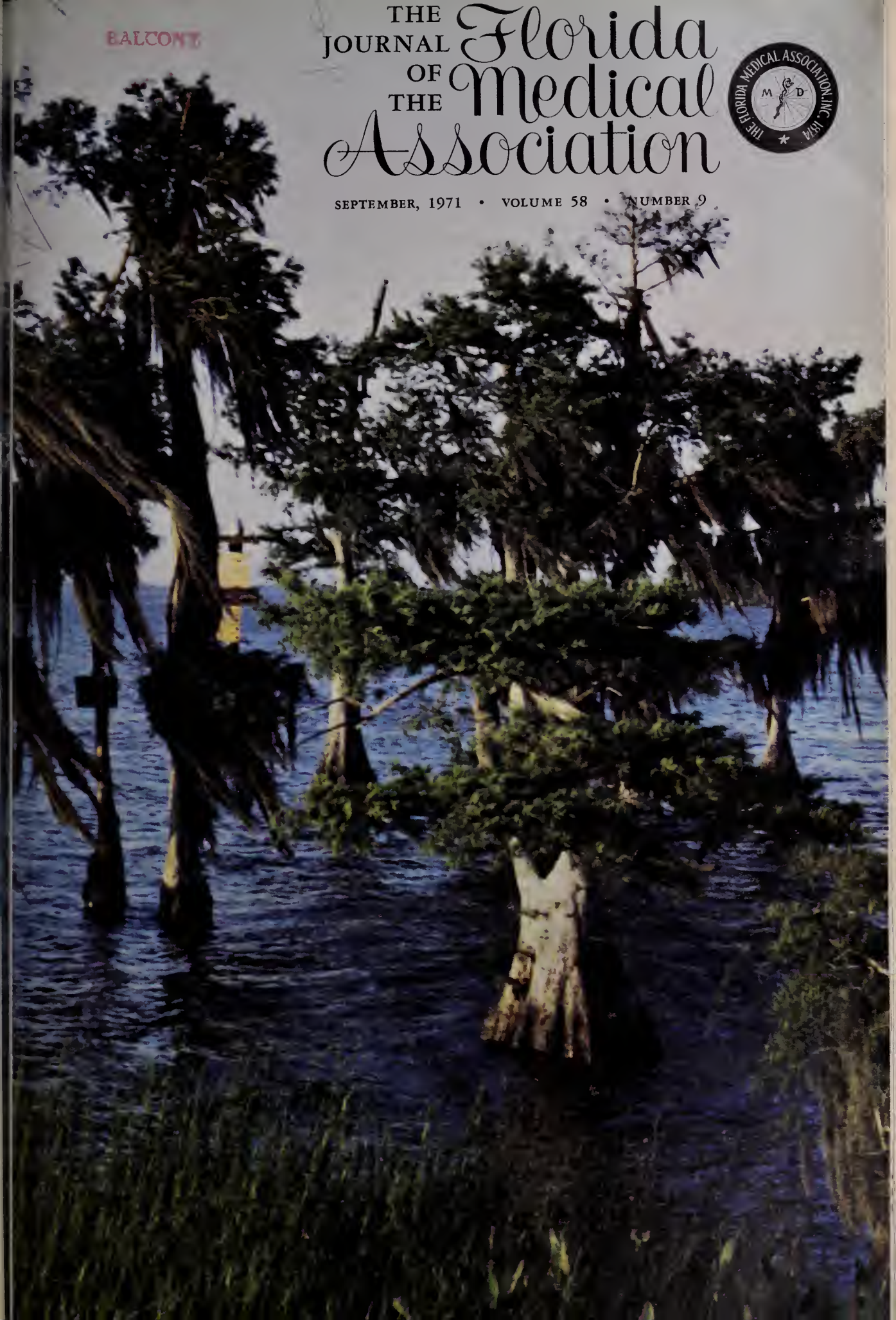
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BALCONY

THE JOURNAL OF THE Florida Medical Association

THE FLORIDA MEDICAL ASSOCIATION, INC. 1874

SEPTEMBER, 1971 • VOLUME 58 • NUMBER 9



Patients fell asleep quickl

Dalmane (flurazepam HCl) 30 mg reduced awake time—both before and after falling asleep - by fifty percent of pretreatment values in patients with insomnia.[1,2]

Two sleep laboratory studies recently confirmed findings of earlier studies of this type, namely, that Dalmane 30 mg was effective in patients who had trouble falling asleep, staying asleep or both. One 30-mg capsule of Dalmane usually induced sleep within 22 minutes, decreased the number of awakenings and the wake time after the onset of sleep, and provided 7 to 8 hours of sleep without need to repeat dosage during the night.

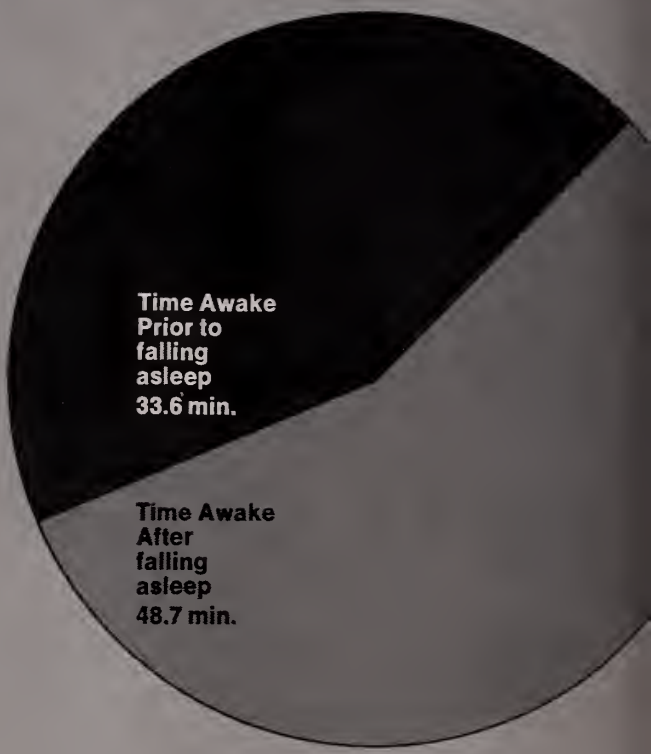
These studies utilized identical protocols and included eight insomniac patients. Sleep laboratory measurements in a limited number of patients are derived from all-night electro-encephalographic, electro-oculographic and electromyographic tracings. Unlike traditional methods of evaluation, they are quantitative, reproducible and projectable to large numbers of subjects.

Results shown represent average values in all subjects for the three consecutive nights of placebo administration prior to Dalmane therapy and the seven consecutive nights on Dalmane 30 mg.

Dalmane is also relatively safe, as reported in clinical studies. Instances of morning "hang-over" have been relatively infrequent; paradoxical reactions (excitement) and hypotension have been rare. Dizziness, drowsiness, lightheadedness and the like were the side effects noted most frequently, particularly in the elderly or debilitated. (An initial dose of Dalmane 15 mg should be prescribed for these patients.)

References: 1. Frost, J. D., Jr.: "A System for Automatically Analyzing Sleep," Scientific Exhibit presented at Clinical Convention, A.M.A., Boston, Nov. 29-Dec. 2, 1970, and Aerospace M.A., Houston, April 26-29, 1971.
2. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley, N.J.

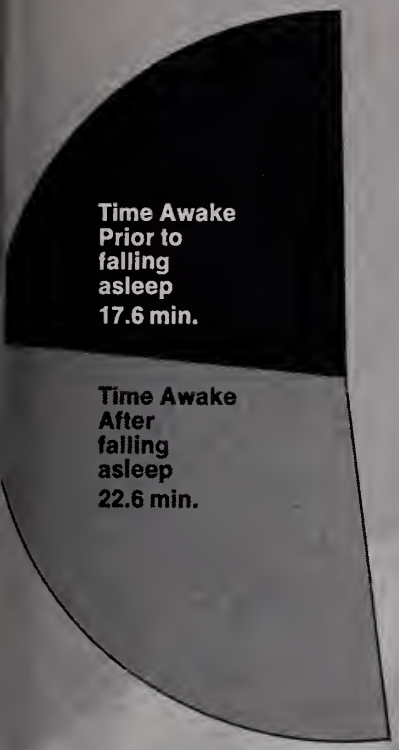
Before Dalmane (flurazepam HCl)



Measuremenls of sleep in the sleep laboratory are obtained with electroencephalographic, electro-oculographic and electromyographic recordings.

nd slept through the night

(1
Dalmane
(urazepam HCl)



e sleep laboratory measurements in cited studies

ter	Before Dalmane	On Dalmane
quired to fall asleep	33.6 min.	17.6 min.
me after onset of sleep	48.7 min.	22.6 min.
of wakeful periods after of sleep	12.2	8.4
eep time	420.0 min.	447.5 min.
eep percent	88.6	94.5

ical effectiveness as
ven in the sleep laboratory

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urazepam HCl)

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15-mg capsule h.s.—initial dosage for ly or debilitated patients.

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Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

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SEPTEMBER, 1971 • VOLUME 58 • NUMBER 9

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SEPTEMBER COVER—We are indebted to Dr. James W. Todd of Eustis, Florida for the front cover photography. Pictured is the entrance to the famed Dora Canal, one of the few natural waterways in Florida. The canal is completely primitive and connects Lake Dora and Lake Eustis.



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President's Page



This Program Should Move Forward Slowly

Each year there are certain issues which emerge from the swarm of continuing problems in the socioeconomic beehive that require special attention and study. One of such problems is physicians' assistants.

This issue of the Journal is devoted to the role of physicians' assistants. As you are aware, the recent meeting of the legislature produced a law which provides for the development of a physician's assistant program in the state, including training programs in the state medical schools. We believe that this law will provide an excellent foundation upon which to build a program. Happily, these assistants will not be licensed, but certified under the jurisdiction of the State Board of Medical Examiners.

According to the social planners and health care experts, the best hope for bridging the gap between patient demand and doctor supply will be expansion of allied personnel, including physicians' assistants, pediatric nurses, various types of technicians and paramedical people of all sorts. What the planners do not seem to take into account is that most likely medical services will continue to be supplied in the physician's office, rather than in the hospital. It is much easier to make effective use of allied health manpower in a large hospital than in the small office of a physician.

Most of the physicians I know are true professionals and not interested in a huge office with three or more medical assistants for whom they must be responsible. They wish to maintain their direct contact with the patient where he is sure of the quality of his output. Will these medical assistants be acceptable by the patient, the physician and the third party if insurance is involved? Another question is the coverage for malpractice. This item is discussed elsewhere and is quite pertinent.

I do hope that this movement to train assistants and develop a program for them will move slowly until their exact need and position can be determined.

D. K. Hurst M.D.

It's working, even when she's not.



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The convenient *b.i.d.* schedule le the patient rest assured – while Gantanol fights the infection.

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Contraindications: Sulfonamide hypersensitivity; infants less than 2 months of age (except adjunctively with pyr amine in congenital toxoplasmosis); pregnancy at ter during nursing period.

Warnings: Safe use in pregnancy has not been lished, and teratogenicity potential has not been thor investigated. Sulfonamides will not eradicate or preve quelae to group A streptococcal infections, *i.e.*, rheu fever, glomerulonephritis. Deaths from hypersensitivity tions, agranulocytosis, aplastic anemia and other blood crasias have been reported; early clinical signs such a throat, fever, pallor, purpura or jaundice may indicate s blood disorders. Complete blood counts and urinalysis careful microscopic examination are recommended freq during sulfonamide therapy. Clinical data are insufficie prolonged or recurrent therapy in chronic renal disea children under 6 years.

Precautions: Use with caution in patients with imp renal or hepatic function, severe allergy, bronchial as and in glucose-6-phosphate dehydrogenase-deficient



4:30 a.m. Effective through the night. Each dose of Gantanol (sulfamethoxazole) delivers up to 12 hours of antibacterial action against susceptible hogens, such as *E. coli, Klebsiella-Aerobacter, S. aureus* and others. tion all day. And action all night to prevent retained urine from oming the medium for bacterial proliferation.

7:30 a.m. With a built-in margin of protection. Gantanol *b.i.d.* rapy means rapid symptomatic provement, often in 24 to 48 hours, for st patients with nonobstructed urinary ct infections.



nonobstructed urinary tract infections

Gantanol® B.I.D. (sulfamethoxazole)

Tablets/Suspension

12 hours of therapy with every dose

ls. In the latter, dose-related hemolysis may occur. ain adequate fluid intake to prevent crystalluria and formation.

Adverse Reactions: *Blood dyscrasias:* agranulocytosis, tic anemia, thrombocytopenia, leukopenia, hemolytic ia, purpura, hypoprothrombinemia and methemoglobi-a; *allergic reactions:* erythema multiforme (Stevens-on syndrome), skin eruptions, epidermal necrolysis, aria, serum sickness, pruritus, exfoliative dermatitis, ylactoid reactions, periorbital edema, conjunctival and al injection, photosensitization, arthralgia and allergic arditis; *gastrointestinal reactions:* nausea, emesis, ab-nal pains, hepatitis, diarrhea, anorexia, pancreatitis and atitis; *C.N.S. reactions:* headache, peripheral neuritis, al depression, convulsions, ataxia, hallucinations, tin-. vertigo and insomnia; and *miscellaneous reactions:* fever, chills, toxic nephrosis with oliguria and anuria, teritis nodosa and L.E. phenomenon. Due to certain ical similarities with some goitrogens, diuretics (acetazolamide and thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age, except adjunctively with pyrimethamine in congenital toxoplasmosis. Usual dosage is as follows:

Adults—2 Gm (4 tabs or teasp.) initially, then 1 Gm *b.i.d.* or *t.i.d.* depending on severity of infection. *Children*—0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially, followed by 0.25 Gm/20 lbs *b.i.d.* Maximum dose for children should not exceed 75 mg/kg/24 hrs.

Supplied: Each tablet or teaspoonful (5 ml) of suspension contains 0.5 Gm sulfamethoxazole.

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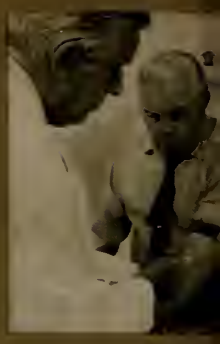
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Some patients may excrete a metabolite which imparts an odor to urine, much like that which occurs after ingestion of asparagus. Crystalluria without hematuria has been reported on occasion, but has promptly subsided with discontinuation of therapy; while the etiologic role of thiabendazole has not been established, the possibility of crystalluria should be kept in mind. Transient leukopenia has been reported in a few patients, but the cause and effect relationship in these cases has not been established.

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THE JOURNAL OF THE Florida Medical Association

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Physician's Assistants in Florida

Jack W. Fleming, M.D.

The physician's assistant—who needs him and who wants him? Exactly what does a physician's assistant do, and how is he different from a nurse, or a technician, or an office assistant? Why not use only nurses for clinical assistants? Why start a cult of inferior physicians? Isn't this physician's assistant idea just a subterfuge of the medical schools to excuse them from producing more doctors? How can we justify spending money on training physician's assistants when all available funds should be used to produce practicing physicians, our first priority? What is going to happen years from now when the physician's assistant is older and may be dissatisfied with his lot; when he may organize and encroach on the practice of medicine?

These are some of the common questions by physicians who have a sincere concern for maintaining high professional standards in medicine. We have tried to answer some of them as well as other questions in this issue of the Journal of the Florida Medical Association. One article has been condensed from a slide-tape presentation of basic information about physician's assistants (page 54). The presentation was prepared in Florida and is available to medical societies and other groups upon request.

Another article in this issue by Dr. Richard A. Henry describes the present status in Florida regarding identification of needs for physician's assistants, liability, evaluation and training programs.

Dr. Fleming is chairman of the Florida Medical Association's Committee on Physician's Assistants and Medical Assistants.

There has been an explosion of information and literature concerning health care needs and various concepts of assistants to physicians.[1,2] With this has come an accompanying explosion of questions and confusion in regards to terminology, utilization, legal status, and the relationship of new health personnel to existing ones.[3-5] The tables in this article attempt to classify and identify the new health care assistants from several different viewpoints. As the blind men described the elephant according to the part they evaluated, so one may classify new health care assistants according to their functions and orientations, and their similarities and relationship to known entities.

One of the most important functions of the Florida Medical Association Committee on Physician's Assistants and Medical Assistants is to gather information about these subjects, discuss and evaluate and help distill this into topics of resolutions for consideration by the FMA Board of Governors. FMA members were polled in February 1971 to determine their opinions as to the need for physician's assistants.

Functions of a Physician's Assistant and Other Health Care Assistants and Their Relationship to "The Establishment"

The definition of a physician's assistant adopted by the American Medical Association House of Delegates in 1969 is:

> The physician's assistant is a skilled person qualified by academic and practical on-the-job training to provide patient services under the supervision and direction

of a licensed physician who is responsible for the performance of that assistant.

According to Powers and Howard,[6] the functions of a physician's assistant can be described more clearly by listing the accomplishments of a Duke physician's assistant graduate working for a family practitioner in a small North Carolina town today:

Actual functions performed under physician supervision

HOSPITAL

1. Initial history and physical examinations on all incoming patients.
2. Ordering of routine laboratory studies on incoming patients.
3. Organization, collection, and reporting of data on all patients to the physician.
4. Routine hospital rounds with patient consultation regarding disease limitations.
5. Patient diagnostic and management procedures including:
 a. Intravenous medications.
 b. Nasogastric intubation and gastric analyses.
 c. Catheterization of the male patient.
 d. Drawing of arterial blood samples and difficult venous blood samples.
 e. Intravenous catheterization of venous cutdowns.
 f. Scheduling of laboratory and x-ray studies for maximum efficiency.
6. Discharge physicals and dictation of narrative summaries on all patients.

OFFICE

1. Detailed history and physical evaluations where indicated or instructed.
2. Initial history and physical examinations on routine illnesses with subsequent collection and organization of laboratory data for the physician.
3. Application and removal of casts and dressings.
4. Instruction of patients on specific regimen to be followed and answering of questions regarding extent and limitation of the condition caused by the disease.
5. Routine evaluations and examinations of healthy patients.
6. Scheduling and arranging consultations and laboratory studies to be done in the outpatient laboratory service of the hospital.
7. Provision of first aid care and routine triage of all accident victims.
8. Assistance in filling out narrative summary portion of all insurance forms.
9. Coordination of technical procedures performed by other physician employees.

The script for the slide tape presention previously mentioned describes the three types of physician's assistant as classified by the Board on Medicine of the National Academy of Science.[7,8] Table 1 indicates how these physician-oriented "physician's assistants" are related to nurse-oriented, office-oriented, and community-oriented health care assistants.

Table 2 illustrates some of the numerous "Nurse Extension Programs" already operating. Some of these programs orient the nurse to an

TABLE 1.—HEALTH CARE ASSISTANTS

1. PHYSICIAN ORIENTED HEALTH CARE ASSISTANTS (Physician's Assistants)

 (M.D. directed; M.D. responsible for functions; compensated by M.D. or institutions)

 a. Physician's Associates
 ("Type A" physician's assistants of the Board on Medicine of the National Academy of Sciences and the Task Force on Physician's Assistants Programs of the American Association of Medical Colleges)

 Trained at medical schools for one year or more.
 (e.g., Physician Associate Programs now at Duke, Yale, Bowman Gray, Alabama, Oklahoma and Emory University medical schools)

 b. Specialized Physician's Assistants ("Type B")
 Trained at medical schools or later, at highly developed teaching centers.

 Cardiac or Coronary Care Physician's Assistants
 (e.g., Grady Hospital and Emory University "Coronary Care Assistants")

 Surgical Physician's Assistants
 (e.g., University of Alabama Medical Center's "Surgical Assistants")

 Pediatric Physician's Assistants
 (e.g., University of Colorado's "Pediatric Nurse Practitioner")

 Pulmonary Physician's Assistants
 All Inhalation Therapists are not physician's assistants. It is proposed that one may become a "Type B" Physician's Assistant by additional training, testing, or review of qualifications by a medical school and/or State Board of Medical Examiners.

 Others

 c. General Physician's Assistants ("Type C")
 Abbreviated training at medical schools, or later at highly developed teaching centers, and on-the-job training.

 (e.g., University of Washington's "MEDEX")*

2. NURSING ORIENTED HEALTH CARE ASSISTANTS

 (R.N. directed; hospital responsible; compensated by hospital)

 a. Licensed Practical Nurse
 Training as established

 b. Specialized Nursing Technicians
 Trained at university and community hospitals where competent training staffs are available.

 Coronary Care Nursing Technicians
 (e.g., "Coronary Care Technicians," Baptist Hospital, Nashville)

 Operating Room Nursing Technicians
 Others

 c. General Nursing Technicians
 Trained at hospitals; on-the-job
 Aids
 Others

3. OFFICE ORIENTED HEALTH CARE ASSISTANTS (Medical Assistants)

*Some consider the MEDEX as a "Type A" physician's assistant or "physician's associate" since trainees in this program are highly selected from military corpsmen who have served on independent duty; the Board on Medicine of the National Academy of Science originally listed MEDEX as a Type C physician's assistant.

(Office helpers who combine minor laboratory, accounting, and secretarial functions within a doctor's office.)

Trained at junior colleges, and/or informal on-the-job training.

4. COMMUNITY ORIENTED HEALTH CARE ASSISTANTS**
(Aides trained by public health and/or other personnel to assist disadvantaged patients to obtain medical and/or social services.)
(e.g., Health Guides of the Model Neighborhoods Area Project, Tampa)

**This fourth category of Health Care Assistants was not included at the time of the original presentation of this classification for FMA approval.

TABLE 2.—NEW NURSING EXTENSION PROGRAMS.*

1. AMBULATORY CARE NURSE
(e.g., Bronx Municipal Hospital Center, New York, N.Y.)

2. PEDIATRIC ASSISTANT PROGRAMS
 a. Pediatric Nurse Practitioner (PNP)
 (e.g., University of Colorado
 Yale University School of Medicine
 Washington University School of Medicine
 Bunker Hill Health Center of Massachusetts General Hospital)
 b. Pediatric Nurse Associate
 (e.g., Cincinnati College of Medicine
 University of Connecticut Health Center)
 c. Ambulatory Pediatric Nurse
 (e.g., St. Christopher's Hospital for Children, Philadelphia)
 d. Nurse Clinician
 (e.g., University of Virginia)

3. FAMILY NURSING PROGRAMS
(e.g., Family Health Practitioner, University of California at Berkeley
Frontier Nursing Service—Windover, Kentucky; [Associated with Vanderbilt University for master's degree]
Nurse Associate, Presbyterian—St. Luke's Hospital, Chicago)

4. OPHTHALMOLOGY ASSISTANT PROGRAM
(e.g., Ophthalmic Nurse—Baylor University, Houston)

5. TRIAGE OR SCREENING NURSES
 a. Triage and Screening
 (e.g., Case Western Reserve University, Cleveland)
 b. Nurse-Physician Surrogate
 (e.g., Albert Einstein College of Medicine)

6. NURSE CLINICIANS
 a. Specialty Care
 1. Coronary Care
 (e.g., Numerous examples in coronary care units now existing over the country)
 2. Surgical Assistants
 3. Ob-Gyn Nurse Clinicians and Nurse Midwives
 b. General
 (e.g., Wayne State University—Detroit Public Health)
 In-patient and out-patient units

*Examples listed here are incomplete because of space limitation.

institution rather than to one physician. There is a great overlap of functions of many of these types of specialized nurses on the one hand and "physician's assistants" on the other. In Table 3 "The Establishment" with existing, certified, allied-health professions is listed. Thus, it is very clear that health-care assistants are a new and different breed in the present scheme of things, but members of the previously existing "establishment" may join this new category.

The American Hospital Association's official position is that it is preferable to apply the term "physician's assistant" only to individuals who work full time for a physician in the performance of tasks assigned by that physician, whether they are employed by the physician or by the hospital.[9]

Why Not Use only Nurses as Physician's Assistants?

In January 1971 the American Medical Association issued a statement suggesting that nurses be given special training and serve as special nurse assistants to physicians; the collection of professional fees for this type of service was sanctioned.[10]

The American Nurses Association greeted this proposal with a roar of disapproval stating, "It is not the prerogative of one profession to speak for another" and that this plan would compound the already existing problem of a shortage of nurses; furthermore, they stated that they had no objection to the physicians obtaining assistants of their own just as nurses have obtained assistants in the past.[11]

On a local level, nurses have not reacted so negatively, in my own experience, and indeed a number have been enrolled in the Duke Physician's Assistant Program** and other physician's assistant programs.

As shown in Table 3 there are already many nursing extension programs in operation and many more are in the planning stage. Many offer curriculums similar to those for physician's assistants; others are more specialized or of less depth than the latter. Some physicians have trained their own nurses to a high level of performance as clinical assistants.

The nurses in this latter role may have problems in regard to demanding the higher level of pay established for physician's assistants and of gaining acceptance by State Boards of Medical Examiners in the future. The new Florida Law (published in this issue) provides a fine for those

**Changed in 1971 to "Physician's Associate Program."

Table 3.—"The Establishment."

1. M.D.
 Generalists
 Specialists

2. R.N.
 Generalists
 Specialists

 Existing areas of expertise and experience (e.g., Nurse Anesthetists)

 New Nursing Extensions (See Table 2)

 L.P.N. (similar classifications as above)

3. ALLIED MEDICAL PROFESSIONS (Allied Health Personnel)

The following programs have been accredited by the A.M.A.:

Certified Laboratory Assistant
Cytotechnologist
Histologic Technician
Inhalation Therapy Technician
Medical Assistant
Medical Record Librarian
Medical Record Technician
Medical Technologist
Nuclear Medicine Technologist
Occupational Therapist
Physical Therapist
Radiation Therapy Technologist
Radiologic Technologist (formerly x-ray technician)
Urologic Assistant (in development)

calling themselves "Physician's Assistants" if not approved by the State Board of Medical Examiners.

There are large numbers of nurses in retirement and many serving in offices who may be attracted to physician's assistants, nurse clinicians, or nurse practitioner programs. However, the female nurse may not be able to assume the same responsibilities such as night calls, moving her family to a new locale, etc., required of some physician's assistants. Assistants to physician's programs can be carried out in large measure by utilization of nurses but development of the physician's assistant concept was partly based on the tapping of a new reservoir of civilian, health manpower, the discharged military corpsman.[2,12]

It remains to be seen how successful the junior colleges will be in providing a core curriculum for health-oriented students who may later progress to physician's assistant programs without preliminary clinical experience. However, some feel that the demand for health care assistants will be so great in the future that these students who are highly motivated toward service will be needed and that nurses, allied-health personnel, and military corpsmen will not be sufficient in number to fill the expanded needs.

Statements from the American Medical Association

In November, 1970, Dr. Walter C. Bornemeier, President of the A.M.A., stated at the Third Annual Duke Conference on Physician's Assistants:

"The relatively simple concept of physician's assistants, we of the American Medical Association believe, will go a long way toward answering one of the main problems faced by this country. The American doctor is almost flat on his back, staggering under an unprecedented patient load. The only quick way we see to get him back on his feet . . . is to give him some extra hands."[13]

In July, 1970, Dr. Bornemeier said:

"The most serious health problem facing our nation today is the shortage of family doctors . . . The American Medical Association believes there is something we can do right away that will begin to relieve the shortage . . .

What we advocate is simply that private physicians begin immediately to divest themselves of all routine functions that can be performed by assistants and associates . . .

Does the creation of physician's assistants mean we can let up on the pressure to produce more and better doctors? Not at all. Obviously, we must have many more doctors as well as many more doctor's assistants if we are going to avoid a further crisis."[14]

The Florida Medical Association and the Evolving Physician's Assistant Concept

The Florida Medical Association House of Delegates at its meeting in 1970 approved an amendment to the Medical Practice Act which provided:

> That a physician's trained assistant, registered nurse, registered nurse midwife, or licensed practical nurse shall not be construed as practicing medicine in their service if rendered under the responsible supervision and control of a licensed physician.

The Association actively supported the change in the Act relative to a physician's trained assistant and a provision relative to this enacted by the 1970 Florida legislature (see 458.13(4) Appendix 1). It was felt at that time that any program utilizing physician's assistants of any type should evolve slowly and with close scrutiny.

The purpose of this amendment was to establish a legal basis for utilization of the physician's assistant heretofore not regulated, licensed or otherwise defined.

In early spring 1971 the Florida Medical Association Board of Governors felt that the existing laws with physician's assistants under surveillance of the State Board of Medical Examiners was suf-

ficient (see Appendix 2). Later, however, when additional legislation was brought forward by the legislature the Florida Medical Association offered suggestions which resulted in an amicable bill which became law (see Appendix 3). The latter requires that physicians must be approved by the State Board of Medical Examiners to supervise qualified physician's assistants and that no physician shall employ more than two physician's assistants. The State Board of Medical Examiners is given considerable leeway in implementing and regulating this program. One may be assured that there will be appropriate restraint and caution in administering this evolving program. It is very important that the State Board of Medical Examiners remain autonomous in its administration of the program and that the FMA as a member of the Florida Health Manpower Council offer helpful advice to the Board. The latter Council consists of volunteer, state and local health and educational agencies and representatives of the major deliverers of health care. The Council will be a source of advice and expertise in determining and developing areas of needs, training requirements and utilization of physician's assistants. The new law (under Section F) provides for an annual evaluation by the legislature for expanding or discontinuing the program, further underscoring our need to assist the State Board of Medical Examiners in any way possible.

The Florida Medical Association Committee on Physician's Assistants and Medical Assistants is a committee of the Council on Allied Professions and Vocations. The latter submitted resolutions pertaining to physician's assistants which were approved by the 1971 Florida Medical Association House of Delegates:

1. That training of physician's assistants not be construed as having higher priority than the training of practicing physicians.
2. That the Florida Medical Association accept and approve the following working definition of physician's assistants as adopted by the AMA:

"The physician's assistant is a skilled person qualified by academic and practical training to provide patient services under the supervision and direction of a licensed physician who is responsible for the performance of that assistant."

3. That training programs for physician's assistants be established only after Florida Medical Association and State Board of Medical Examiners approval. The Florida Medical Association favors the simple outline of health care assistants, as presented to the Council by Dr. Jack Fleming, as a tentative working definition and classification of health care assistants.
4. That physician's assistants not be recruited exclusively from RN's, but that RN's not be excluded from becoming physician assistants.
5. That FMA stage one approval (procedural endorsement) be granted the pilot study to test physician's assistants in rural areas as proposed by Dr. Richard Henry, using physician's assistants who have already been trained in an approved program.
6. That FMA approve in principle and encourage further exploration by the University of Florida into the cardiovascular technician training program, and that stage one approval (procedural endorsement) be granted this program.
7. That the FMA emphasize that first priority in training of physician's assistants is for the rendering of health care outside of the hospital setting in the local-physician supervised general delivery of health care.
8. That the Board of Medical Examiners be requested to consider certification as opposed to licensure of physician's assistants in Florida.

The following resolution was referred by the House of Delegates to the Board of Governors:

9. That eventual qualifications of physician's assistants be determined by a national certification body, with endorsement and permission for a particular assistant to be employed by a particular physician by the Florida Board of Medical Examiners.

Survey Of Physicians Concerning Physician's Assistants

In February 1971 a questionnaire was mailed to 7,269 members of the Florida Medical Association. Of these 649 (8.93%) were returned. Five hundred eleven (78%) physicians stated that they felt there is a need for physician's assistants; 357 (55%) stated they would want an assistant in their practice at some time in the future (Table 4).

It is interesting that 242 physicians (37%) of the 649 returning the questionnaire stated that they already employed a person they regard as a physician's assistant. Confusion concerning the definition of a physician's assistant or misinterpretation of question number 4 are manifested by the large number of nursing and office oriented health care assistants designated on the questionnaire.

One can conclude only that the majority of physicians answering the questionnaire favored the concept of the physician's assistant and that at least 357 physicians in Florida want to employ a physician's assistant at some time.

A questionnaire concerning physician's assistants was mailed in 1970 to all physicians in North Carolina where there has been a longer and greater exposure to information concerning physician's assistants.[15] Of 3,800 questionnaires, 53.3% were answered. Eighty-two per cent indicated that there was a need for physician's assistants and 42% of the 3,800 physicians indicated they would hire one. These specialties showed the greatest interest in employing a physician's assistant:

Table 4.—Physician's Assistants Questionnaire.

Number of Questionnaires — 7,269
Number of Questionnaires Returned — 649
Percentage of Return — 8.93%

	Total	Yes	No	Undecided	No Answer
1. Do you feel there is a need for this type personnel?	649	511	126	8	4
2. Do you think you would be interested at sometime in employing a physician's assistant?	649	357	254	22	16
3. If your answer to #2 is "yes," would you want a physician's assistant within the next two years? -or sometime later than two years?	649	315	60	24	250
4. Do you have an employee in your office that could be considered as serving in the capacity of a physician's assistant? If so, please indicate which of the following classifications is most closely associated with the nature of the duties performed by the employee.	649	242	221	3	183
I. PHYSICIAN ORIENTED HEALTH CARE ASSISTANTS (Physician's Assistants)					
A. Physician's Associates	11				
B. Specialized Physician's Assistants	105				
C. General Physician's Assistants	50				
II. NURSING ORIENTED HEALTH CARE ASSISTANTS					
A. Licensed Practical Nurses	98				
B. Specialized Nursing Technicians	82				
C. General Nursing Technicians	63				
III. OFFICE ORIENTED HEALTH CARE ASSISTANTS (Medical Assistants) "Girl Friday"	212				

5. Type of Practice:

Family Physician	136	Medicine	109
Pediatrics	43	Obstetrics and Gynecology	48
Surgery	99	Other, specify	291

Pediatrics (55% positive responses), Surgery and Surgery Subspecialties (45%), Family Practice (44%), and Obstetrics-Gynecology (42%).

In a similar survey in Wisconsin reported in 1969, 32% of 4,000 physicians answered the questionnaire.[16] Sixty-one per cent stated that assistants were needed and 42% stated they would use an assistant in their practice.

Why Produce Physician's Assistants When We Need More M.D.s?

As stated in the Florida Medical Association resolutions, increase in the output of practicing physicians should be the first medical education priority in Florida. No one has advocated training of physician's assistants at the expense of producing practicing physicians in the deliberations of the FMA Committee on Physician's Assistants and Medical Assistants.

It seems likely that our educational system will heed the obvious discrepancy of producing more and more schoolteachers and engineers for whom there are not enough jobs, while there is great need for the training of personnel in the health field. Establishment of priorities in our educational system should allow the necessary increase in the enrollment of medical students as well as students in the physician's assistant programs, when and if the latter are established in Florida after further careful study and evaluation.

The Florida Plan described by Dr. Penrod, utilizing selected community hospitals for medical student training (as well as the new medical school at Tampa) should allow desirable expansion of facilities and faculty to produce more physicians in Florida.[17] Some of these community hospitals and some junior colleges in association with university medical schools might be utilized in a similar manner for physician's assistant training in the future—but only after standards are developed and physician's assistant training programs, if any, are well established in the medical schools. Dr. Robert Howard, Director of the Physician's Assistant Program at Duke, feels strongly that some community hospitals with sophisticated staff and facilities would be ideal training centers for physician's assistants.[18,19] Universities and junior colleges with specific relationships to university medical school physician's assistant programs can play a strong role in adding training capabilities. The efficiency of a core curriculum for allied health personnel and health care assistants may be a strong point in favor of utilizing existing educational facilities in junior colleges and community hospitals.

The Future of Physician's Assistants

Educators and physicians alike are concerned about physician's assistants who, in the future, may become dissatisfied with their lot as dependent physician's assistants. The American Medical Association Guidelines for Development of New Health Occupations suggests that provisions should be made for career, education, and geographic mobility in innovative careers such as the physician's assistant.[20] There must be horizontal as well as vertical mobility for health care assistants. Development of core curriculums for health care personnel of varying levels in the future will not only allow economy of training but will encourage this mobility, so that there will not be dead ends in the various health occupations.[21,22] Ambulance personnel or Emergency Medical Technicians, for example, should find it easier to enter other technical health care occupations or a physician's assistant program after experience and good performance.

If a Physician's Associate or "Type A" physician's assistant wants to become an independent physician, his training and experience as a physician's assistant more than likely will be considered in his medical school curriculum if he is otherwise qualified and is accepted to a medical school.

Teachers of physician's assistants instill into these students their current and future limitations and their dependency on the physician.[23] This is one of the many reasons physician's assistants must be taught by physicians, in large measure. Physicians must make certain that the above continues to be the case in order to obviate future problems which might come from licensure of individual physician's assistants (currently physician's assistants are certified—not licensed).

Some physician's assistants, as they become older or lose the physicians with whom they are associated, may develop administrative and other skills which lead them to different types of health-related employment.

National Efforts to Establish Curriculums and Standards for Physician's Assistants

The American Academy of Family Practice, American Academy of Pediatrics, American College of Physicians and American Society of Internal Medicine are considering, jointly, some of the functions and tasks of the physician's assistants. It is hoped that the deliberations of these groups, along with the American Medical Association Committee on Emerging Health Manpower and the Councils on Health Manpower and Medical

Education, will result in a more orderly development of nationally recognized curriculums and standards according to the AMA Guidelines for Development of New Health Occupations.

Position of the Joint Commission on Accreditation of Hospitals

The position of the J.C.A.H. regarding physician's assistants is in agreement with the "Statement on Medical Staff Membership and the Status of Allied Health Professionals in Hospitals."[9] It was approved by the American Hospital Association in April 1969 and by the AMA in July 1969. The J.C.A.H. Bulletin No. 59 states that a hospital staff must delineate in its bylaws, rules and regulations for qualifications, functions, status of, and responsibility of physician's assistants just as required for other medical professionals working in the hospital under the surveillance of the medical staff. This should be recorded in the appropriate minutes and in the employment record of the physician's assistant whether or not he is paid by the hospital or the physician.

The Physician's Assistant in the Veterans Administration

In November 1970 the Veterans Administration issued a circular to all directors of Veterans Administration hospitals and clinics concerning physician's assistant employment and training. It stated that the physician's assistant is a new member of the health team and will assume duties outlined in detail in the U. S. Civil Service presentation "Handbook of Occupational Groups and Series of Classes," G.S.-603—P. A. Series (published June 1970). The "Qualification Standard" lists the physician's assistant as G.S.-7/11.

The Circular (10-70-255) stated that the physician's assistant may take case histories, conduct physical examinations, and order laboratory studies during hospital rounds and clinical visits. He may assist the physician by applying or changing dressings, giving injections or other medications, suturing wounds, or performing lumbar punctures. It stated further that the physician's assistant may provide, under the direction and review of a physician, most of the routine daily medical needs in chronic cases while in outpatient clinics, including counseling patients on preventive care, medical problems, and the use of prescribed treatments or drugs. The Veterans Administration is not developing its own training programs for physician's assistants but is working directly with and supporting medical school physician's assistant programs and providing opportunities for clinical training and experience (see below).

Physician's Assistant Training at the University of Alabama Medical Center

The physician's assistant training program at the University of Alabama in Birmingham Medical Center began in October 1970 with an initial class of 12 students.[24] One of these students is committed to a physician practicing in Florida and will arrive in January 1972 to begin work. The next class will be enlarged to 32 students. Presently there are 300 applications from qualified people for these positions.

The University of Alabama program is now affiliated with the Veterans Administration. It receives from VA an administrative salary, student stipends and use of faculty and facilities for clinical training at the Birmingham and Tuskegee Veterans Hospitals.

The University of Alabama program has been designated a VA regional training program and is currently developing clinical training arrangements with a number of VA hospitals in Alabama, Georgia, Mississippi, Arkansas and Florida. These training grounds will be needed when the class is enlarged to 40 students eventually.

The VA hopes to attract a number of the graduates of this program to positions, under VA physicians, in their system and have designated a starting salary range of $10,400-$12,600 per year based on education and experience. There is a potential of as high as $16,600 per year after 10 years. The job description was noted previously.

The University of Alabama Medical Center also has been designated as a regional MEDEX training center and the first class of 22 students is scattered over the southeast; approximately 50% of them are now in Alabama. Applicants to this program must have had experience as independent duty military service corpsmen. They spend three months in the University and 12 months with their employer-preceptor. The latter must agree to hire the MEDEX before he is accepted as a preceptor.

One of the advantages of the MEDEX concept which should be considered is the idea of matching a man to a need-situation before accepting him into a program. This could be done by screening candidates and physician-employers, matching them and accepting students who qualify and have been matched with and accepted by a physician. These locked-in type students may constitute

60%-80% of each class. This would help assure that a majority of graduates go where they are needed; however, this system would also provide some limitations of choice which may be undesirable to some individuals.

These two types of training of physician's assistants, one with over 18 months of faculty-medical center training and the other with abbreviated faculty-hospital training (MEDEX), are providing an opportunity to study the relative effectiveness and usefulness of the two programs.

Comments

At this time there is a tremendous current of public opinion, legislative effort and bureaucratic edict, on national as well as local levels, to provide an increased quantity of medical care while hopefully maintaining or improving the present quality of care.[24-26]

As physicians, we must insist on the latter while staying abreast of and evaluating the staggering numbers of programs and plans put forward in these rapidly changing times. The physician's assistant concept is but one facet of the many innovative proposals to increase the quantity and quality of medical care.[27-30]

While each of us as individual physicians may have a restricted viewpoint of the medical needs of the nation as a whole or even of a nearby rural community, we can try to assess health care needs in our own locale, realistically. It is very important also that we add to realism by telling the story of what free enterprise medicine is accomplishing in our own community now, thus adding some balance to discussions calling for increased health care and other changes. As Dr. Richard S. Wilbur, Deputy Executive Vice President of the AMA, stated at the 1971 FMA annual meeting, we must point out that organized medicine is not responsible for *all* the health-related ills that beset America. He said in effect that the answer for rat bites of children in the ghetto is not simply more surgeons to treat them but better garbage collection and living conditions. He went on to describe how physicians, individually and collectively, must be relied on to play major roles in establishing realistic goals and priorities in planning for and delivering health care.

Nevertheless, we must acknowledge that there is room for innovative approaches to improving health care for some segments of our population who are penalized because of economics or geography. As Dr. Bornemeier[13,14] alluded, we must face the facts also that there are major problems related to shortages of *primary* physician care, in many areas, regardless of economics. The medical profession should be identified with seeking new solutions to complex problems with new knowledge and new ways of doing things, as well as being the guardians of high professional standards.

Assistants to physicians are here to stay in one form or other. The physician's assistant concept is innovative and not completely proven or delineated, but enough information and evaluations are in now to warrant expectations for its continued growth and development.[21] Nomenclature and classifications have been confusing but clarifications are evolving.[19,27,31] How various health care assistant programs evolve depends, in large measure, on physicians' utilization and maintenance of surveillance of the assistants—and how much physicians want to shape their own future—and the future of the art and science of medicine.

Acknowledgement

The Florida Medical Association Committee on Physician's Assistants and Medical Assistants is very much indebted to Dr. James M. Stem of Clearwater for his leadership as chairman of the committee in 1970-1971.

Present committee members are Fred H. Albee Jr., M.D., Daytona Beach; Richard A. Henry, M.D., Gainesville; Herbert E. Brooks, M.D., Bonifay; James R. Boulware III, M.D., Lakeland; Paul D. Willis, M.D., Jacksonville and Jack W. Fleming, M.D., (present chairman) Pensacola.

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Appendix 1.

1970 SUPPLEMENT TO FLORIDA STATUTES, 1969

CHAPTER 458

MEDICAL PRACTICE ACT

458.05 Application for license; qualifications as applicant.

458.13 Definition of practice of medicine; limitations, exceptions, etc.

458.05 Application for license; qualifications as applicant.—

(1) Any person wishing to practice medicine in this state, who has not heretofore been registered or licensed so to do, shall, before practicing in this state, make application to the board upon such form and in such manner as shall be adopted and prescribed by it, and obtain a license. Unless such person shall have obtained a license as aforesaid, it shall be unlawful for him to practice medicine in this state, and if he shall so practice medicine, he shall be deemed to have violated the provisions of this chapter.

(2) The board shall admit to examination any candidate who pays the fee provided for in this chapter and submits evidence verified by oath, satisfactory to the board, that such applicant:

(a) Is more than twenty-one years of age and a citizen of the United States or has legally declared intention of becoming a citizen and has been a resident of the United States for a minimum of one year.

(b) Is of good moral character;

(c) Is a graduate of a medical school or college maintaining a standard and reputability approved by the board pursuant to §458.08.

(d) Has completed at least one year of approved internship or at least five years of private practice.

(3) Notwithstanding the provisions of subsection (2)(c), graduates of foreign medical schools, except approved schools in Canada, who are otherwise qualified and whose medical credentials have been evaluated by the educational counsel for foreign medical graduates and who have passed the American medical qualification examination for foreign medical graduates, may be accepted for the examinations in Florida.

(4) The board is granted the authority to waive the requirements of subsection (2)(c) for an applicant who demonstrates that he is either eligible for or has been examined and certified as a specialist by one of the appropriate American specialty boards accredited by the council of the American medical association.

History.—§6, ch. 8415, 1921; §2, ch. 12285, 1927; CGL 3408; §1, ch. 26549, 1951; §3, ch. 29867, 1955; §4, ch. 61-243; §§1, 2, ch. 70-92.
Cf.—§458.13. Practice of medicine defined.
§458.15(2). Penalty for practicing without license.

458.13 Definition of practice of medicine; limitations, exceptions, etc.—

(1) Any person, except as hereinafter provided, shall be deemed to be practicing medicine within the purview of this chapter who holds himself out as being able to diagnose, treat, operate, or prescribe for any human disease, pain, injury, deformity or physical or mental condition or who shall offer or undertake, by any means or method, to diagnose, treat, operate, or prescribe for any human disease, pain, injury, deformity or physical or mental condition.

(2) This chapter shall not be construed as applying to:

(a) Any osteopath, chiropractor, podiatrist, naturopath, optometrist, psychologist, nurse, pharmacist, dentist, or midwife, duly and legally licensed by their respective state boards, when practicing their profession within the purview of the statutes applicable to their respective professions.

(b) Any lawfully qualified physician, of some other state or country, when meeting legally registered and qualified physicians of this state in consultation.

(c) Any physician duly qualified to practice in any county of this state called to attend isolated cases in another county of this state, although not residing or habitually practicing in such other county.

(d) Any person furnishing medical assistance in case of emergency.

(e) The domestic administration of recognized family remedies.

(f) The practice of the religious tenets of any church in this state.

(g) Any person or manufacturer who, without the use of drugs or medicine, mechanically fits or sells lenses, artificial eyes, limbs or other apparatus or appliances, or is engaged in the mechanical examination of eyes for the purpose of constructing or adjusting spectacles, eyeglasses or lenses.

(h) Commissioned medical officers of the armed forces of the United States, and of the public health service of the United States, while on active duty for the United States.

(i) Any person while actually serving, without salary or professional fees, on the resident medical staff of hospitals in this state; subject, however, to the limitations contained in subsection (3) hereof.

(j) Any person employed as a physician in a state institution.

(3) Every person practicing as a resident physician, assistant resident physician, house physician or intern in this state, shall register with the state board of medical examiners showing the date upon which he started to practice as aforesaid within this state. Every hospital employing a resident physician, assistant resident physician, house physician or intern shall, on January 1 and July 1 of each year, furnish the state board of medical examiners with a list of their said employees and such other information as the board may direct. Unless previously authorized by the board no person may be employed as a house physician or act as a resident physician, assistant resident physician or an intern in a hospital of this state for more than two years without a license, except that resident physicians, assistant resident physicians and interns in approved training programs shall be

exempt from this limitation. Any person violating this subsection shall be deemed guilty of a misdemeanor.

(4) Nothing in this section shall be construed to prohibit service rendered by a physician's trained assistant, a registered nurse, a registered nurse midwife (nurse obstetric associate), or a licensed practical nurse, if such service be rendered under the responsible supervision and control of a licensed physician.

History.—§14, ch. 8415, 1921; §6, ch. 12285, 1927; CGL 3416; §1, ch. 26551, 1951; §5, ch. 29867, 1955; §10, ch. 61-243; §2, ch. 65-170; §5, ch. 69-205; §3, ch. 70-92.

Appendix 2.

Section 1. Subsection 458.13(4), Florida Statutes, is amended to read:

458.13 Definition of practice of medicine; limitations, exceptions, etc.—

(4) Nothing contained in this chapter shall be construed to prohibit a physician's assistant from rendering medical services if such services are rendered under the supervision and control of a physician, provided that such physician's assistant is registered and approved by the board of medical examiners. Supervision and control shall not be construed as requiring the personal presence of the supervising and controlling physician at the place where such services are rendered. Nothing contained in this chapter shall be construed to prohibit a student enrolled in an approved program for training physician's assistants from rendering such services if such services are rendered in the course of such program.

Section 2. Chapter 458, Florida Statutes, is amended to add a new section to read:

458. Physician's assistants; authorization, qualification, registration

Appendix 3.

An Act Providing for Certification and Training of Physician's Assistants in Florida

(Enacted by 1971 Florida Legislature)

A bill to be entitled

An act relating to physicians; creating §458.135, Florida Statutes, to provide for a physician's assistant program; providing definitions; providing an advisory council; providing for regulations and for development and review of curricula; providing for the establishment of standards by board of medical examiners; providing a ratio of assistants to physicians; providing for an annual report by the board to the legislature; providing a schedule of fees and a penalty; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Section 458.135, Florida Statutes, is created to read:

458.135 Physician's assistant program.—

(1) LEGISLATIVE INTENT.—It is the intent of the legislature to develop a new category of health manpower to more adequately deliver medical service to the state's population. The physician's assistant is hereby authorized and intended to extend the specific skills of a physician to areas of greatest need. In order that maximum skills may be obtained within a minimum time period of education, the physician's assistant shall be specialized to the extent that he can operate efficiently and effectively in the specialty areas of medicine and surgery.

(2) DEFINITIONS.—When used in this act, unless the context clearly requires otherwise:

(a) "Board" means the board of medical examiners of the state of Florida.

(b) "Council" means the physician's assistant advisory council.

(c) "Approved program" means a program of education for physicians' assistants which has been approved by the board.

(d) "Trainee" means a physician's assistant trainee who is currently enrolled in an approved program.

(e) "Physician" means an individual licensed under chapter 458, Florida Statutes, to practice medicine who has been approved by the board to supervise a physician's assistant.

(f) "Physician's assistant" means an individual who is a graduate of an approved program or its equivalent and is approved by the board to perform medical services under the supervision of a physician or group of physicians.

(g) "Supervision" means responsible supervision and control, with the licensed physician assuming legal liability for the services rendered by the physician's assistant. Except in cases of emergency, supervision shall require the easy availability of physical presence of the licensed physician for consultation and direction of the actions of the physician's assistant. The board of medical examiners shall further establish rules and regulations regarding the physical presence of the licensed physician which constitutes supervision of the physician's assistant.

(3) PHYSICIAN'S ASSISTANT ADVISORY COUNCIL.—

(a) There is created an advisory council to be known as "the physician's assistant advisory council" to advise and consult with the board of medical examiners in carrying out the provisions of this act. The members of the council shall be appointed by the governor and shall consist of the following members:

1. A board-certified specialist of internal medicine from the faculty of an approved school of medicine in the state.
2. A board-certified specialist in internal medicine licensed under chapter 458.
3. A board-certified surgeon from the faculty of an approved school of medicine in the state.
4. A board-certified surgeon licensed under chapter 458.
5. Two (2) diplomates of the American Board of General Practice licensed under chapter 458.
6. A board-certified anesthesiologist from the faculty of an approved school of medicine in the state.
7. A board-certified anesthesiologist licensed under chapter 458.
8. A board-certified pediatrician from the faculty of an approved school of medicine in the state.
9. A board-certified pediatrician licensed under chapter 458.
10. A board-certified specialist in the practice of Obstetrics and Gynecology from the faculty of an approved school of medicine in the state.
11. A board-certified specialist in the practice of Obstetrics and Gynecology licensed under chaper 458.
12. A registered nurse from the faculty of an approved school of medicine in the state.
13. A registered nurse skilled in intensive care licensed under chapter 464.

(b) Board members shall serve without pay, but shall be entitled to travel and per diem expense as authorized by §112.061, Florida Statutes.

(4) PHYSICIAN'S ASSISTANT CURRICULA.—

(a) The council shall review and recommend to the board two (2) year curricula for the training of physician's assistants in the specialties of medicine and surgery.

(b) The council shall consult with and seek the advice of professional medical organizations and specialty societies to insure development of a proper training program for physicians' assistants in the specialty areas and to promote the proper utilization of the program by physicians.

(c) The council shall submit the curricula to the board for approval prior to implementation. The council shall review curricula on an annual basis and submit changes to the board for approval prior to implementation.

(5) DUTIES OF THE BOARD OF MEDICAL EXAMINERS.—

(a) It is the duty of the board to review and approve all curricula for the physician's assistant program. The board shall issue certificates of approval for educational, research, and training programs and establish standards for such programs. It is the duty of the board to recertify such programs every three (3) years based on a continuing review of the educational requirements established by the board.

(b) The board shall consult with the council to determine guidelines for equivalency and proficiency tests and other methods used to evaluate and credit applicants for past education and experience in the specialty fields of medicine and surgery.

(c) It is the duty of the board to establish and publish standards which shall insure that the physician's assistant program shall be operated in such a manner that services rendered under it do not endanger the health and welfare of patients who receive such services.

(d) A physician or group of physicians shall be required to submit an application to the board for authorization to supervise physicians' assistants. The application form shall contain the educational qualifications of the physician's assistant intended to be employed. The board shall approve such application when it is satisfied that the rights of the physician, the physician's assistant, and the public are protected. Upon approval of the application, the board shall issue to the physician or group of physicians a certificate of approval which shall be renewed on an annual basis.

(e) The board shall certify no more than two (2) physician's assistants for any physician practicing alone; four (4) physician's assistants for two (2) physicians practicing together formally or informally; a ratio of two (2) physician's assistants to three (3) physicians in any group of physicians practicing together formally or informally.

(f) The board shall report to the legislature not later than March 15, 1973, and annually thereafter, as to:

1. The number of and types of programs that have been approved by the board and a description of each.

2. The number of physicians' assistants approved in the program.

3. An evaluation of the programs and the acceptance of them by the community.

4. The number of legal actions initiated as a direct or indirect result of services rendered by physicians' assistants.

5. Such other information as would be useful to the legislature in evaluating the physician's assistant program for either expanding or discontinuing the program.

(g) The board may revoke the certificate of approval to supervise a physician's assistant held by any physician when, in its judgment, the intent of this act is not being carried out.

(h) The board shall adopt rules and regulations necessary for the administration of the physician's assistant program, and such rules and regulations shall be adopted in accordance with the administrative procedure act, chapter 120, Florida Statutes. The board shall adopt such rules and regulations as are necessary to insure both the continued competency of physicians' assistants and the proper utilization of them by physicians or groups of physicians.

(6) PHYSICIANS' ASSISTANTS.—

(a) Notwithstanding any other provision of law, a physician's assistant may perform the following medical services:

1. A physician's assistant in medicine shall perform medical services when such services are rendered under the supervision of a physician or group of physicians in the specialty area of medicine exclusive of the area of surgery, but inclusive of the area of emergency medicine.

2. A physician's assistant in surgery shall perform medical services when such services are rendered under the supervision of a physician or group of physicians in the area of surgery and emergency medicine.

(b) Notwithstanding any other provision of law, a trainee may perform medical services when such services are rendered within the scope of the curriculum and program approved by the board.

(c) A physician's assistant may not operate or manage a branch office for any physician in which there is not a full-time physician regularly available to practice medicine.

(d) The board may revoke certification of any physician's assistant when in its judgment, the intent of this act is not being carried out, provided, however, notwithstanding any of the provisions contained herein, any physician's assistant approved under this act to perform refractive services or adaptation of lenses or devices to the human eye, may do so only in the office of the physician to whom the physician's assistant has been assigned, where such physician maintains his primary practice or in the physical presence of such physician.

(7) FEES.—

(a) A fee of fifty dollars ($50) shall accompany the annual application to the board by a physician or group of physicians for authorization to supervise a physician's assistant.

(b) A fee of five hundred dollars ($500) shall be paid for certification by the board of an approved physician's assistant program and for renewal of such certification every three (3) years.

(c) Upon approval by the board of an application for certification of a physician's assistant in a specialty area, the applicant shall be charged a fee of twenty-five dollars ($25), and a fee of fifteen dollars ($15) shall accompany each yearly application for renewal of the physician's assistant certificate.

(8) PENALTIES.—Any person who has not been approved by the board and who holds himself out as a physician's assistant or who uses any other term indicating or implying that he is a physician's assistant is guilty of a felony punishable by not less than six months, nor more than eighteen months imprisonment in the state prison and by a fine of not less than five hundred dollars ($500), nor more than twenty-five thousand dollars ($25,000).

(9) Nothing in this act shall be construed to eliminate or supersede existing laws relating to other paramedical professions or services. It is the intent of this act to supplement and be in addition to all such existing programs relating to the certification and practice of paramedical professions as may be authorized by law.

Section 1A. Subsection (8) of section 458.135, Florida Statutes, as published in section 1 of this act, is created to read:

458.135 Physician's assistant program.—

(8) Penalties.—Any person who has not been approved by the board and who holds himself out as a physician's assistant or who uses any other term in indicating or implying that he is a physician's assistant is guilty of a felony of the third degree, punishable as provided in sections 775.082 or 775.084, and by fine not exceeding twenty-five thousand dollars ($25,000).

Section 1B. In the event HB 935, introduced in the 1971 regular session of the legislature, is enacted into law, subsection (8) of section 458.135, Florida Statutes, as published in section 1 of this act will stand repealed and be omitted from the Florida Statutes. In the event HB 935 is not enacted into law, section 1A of this act will stand repealed and be omitted from the Florida Statutes.

Section 2. This act shall take effect July 1, 1971.

Efforts So Far

Richard A. Henry, M.D.

The Department of Community Health at the University of Florida College of Medicine has been active for the past 18 months in exploring the concept of Physician's Assistants, methods of training them and unanswered questions relating to their employment.

Our efforts are consonant with the purpose of the department. As expressed by Dr. Richard Reynolds, chairman, "Community health embraces the prevention of illness, the recognition and care of early illness of individuals, attempts to facilitate successful social and psychological adaptations to environmental stresses, and includes getting people who need help into the flow of health care delivery systems. The World Health Organization defines health as a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity. Community health, however, also directs itself to the troublesome day-in and day-out problems of patient care, societal resources and availability of health manpower. It is concerned with community structures, economic systems, physician's values or goals and patient expectations as they relate to health care."[1]

Problem

Identification of population segments most needing improved health care delivery was not difficult. Many studies have identified rural and impacted urban areas as having the least in the way of all health services available to them. The factors causing this shortage are quite complex, and the discrepancies in services between these and other areas are relative as well as absolute.

There is a shortage of manpower throughout; there is a discrepancy between types of health care workers produced and the measured need for them; there is a geographic maldistribution of all types of health personnel, and there is misapplication of talents when compared to training and experience. The law of supply and demand is impeded in affecting these problems primarily by the sacrosanct nature of the healing arts perpetrated by an overriding concern for quality of care.

The attrition rate of physicians from underserved areas is not a primary cause, as many would believe, but rather the effect of many other factors, social as well as professional, which in turn decrease the replenishing of this manpower.

Compare the education and armamentarium of the present medical school graduate with the preceding generation. Rightly or wrongly, he is competent and effective in the hospital and feels that his training is wasted if he cannot treat his patients ideally—in the hospital—if they need it. The hospitals are not in the rural areas.

Consider the demands of physicians made by legal requirements (preschool exams for instance): insurance companies, federal aviation authority, welfare and rehabilitation programs, all require a physician's examination; routine annual or semiannual examinations; and the increased awareness of the public of the advantages of maintenance health care. These demands sap the time and stamina of the physician and prostitute his training and experience.

The physician who comfortably cared for 1,500 people 25 years ago is now inundated by expectations and demands that he hasn't the time to meet. Frequently the result is increasing infringement on his personal requirements—the time for his wife and family, recreation and postgraduate education. The predictable results are physical or mental illness, divorce, attrition or, at best, inadequate continuing education in this most dynamic of all professions.

The concept of Physician's Assistants would seem to answer some of these needs. With concern for quality of (health) care, organized medicine and individual physicians alike have not directed enough attention to quantity of health care. The Department of Community Health, in exploring the concept of Physician's Assistants, is primarily interested in determining whether these personnel can increase the quantity of health care without a sacrifice of quality.

Legal Status

In 1968, the Florida Legislature enacted a law granting legal status for the employment and activities of the Physician's Assistant. This law, an exception to the medical practice act, was felt

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by legal experts in the field as being too indefinite and susceptible to question by the courts. Therefore, the present legislature has passed an act which would provide a firmer basis for employment and activities. Basically, the law provides a framework for the development of training programs for Physician's Assistants and guidelines for their employment. The State Board of Medical Examiners has regulatory powers under this act. The basic program will entail a 24-month training period and provisions are included for utilization of equivalency and proficiency testing to provide credit for prior training. Provision is also made for continuing education. A physician may employ a maximum of two Physician's Assistants.

Liability

The physician is legally liable for the acts of his assistant in the same way that he is liable for the acts of his nurse or a laboratory technician in his employ. Liability insurance carriers in Florida have expressed themselves, through their insurance service organization in New York, in a most favorable manner. They will insure the activities of the PA for no additional premium to the employing physician. Should separate coverage be desired, the PA may obtain $100-300,000 liability insurance for one half the cost of a class I physician premium (at present this cost would be $147 per year). This suggests, at least, tentative approval by liability carriers of the concept of PA.

Evaluation

The quality of health care rendered in utilizing assistants is justifiably of great concern to physicians, the ultimate judges and regulators of quality. Several studies (Silver,[2] Beasley[3] and Rogers[4]) indicate excellent maintenance and even improvement in quality while increasing services. Addressing itself to quality, quantity, acceptance and cost is a proposal of the Department of Community Health to utilize PA's in a rural area which has no resident physician.

Gilchrist County, 30 miles west of Gainesville, has had no physician for the past three years. The county is rural and agrarian and the population is 3,500. Baseline studies on cost and availability of health care have been done. Two graduate Physician's Assistants, with supervision of physicians from the Department of Community Health, are now providing primary health care. At yearly intervals sample surveys will again be conducted to compare changes in health care. Other means of measuring the impact of PA's are also being used.

Acceptability of assistants by the recipient of health care, physician and other allied health workers appears to depend very strongly on education (for these groups) regarding the specific role of this different type of health care purveyor. In this country we have four generations of reinforcement of the role of the physician, and it is only logical that there should be some hesitation on all sides when a nonphysician performs some of his functions. Education, reinforced by example, will alleviate this as evidenced by Pondy,[5] and Silver and Lewis,[6] who found that acceptance was correlated with education of the patients and health professionals regarding the functions and roles of the Physician's Assistant.

Training of PA's

There are over 25 operational programs training Physician's Assistants in this country. All but three are college or university based and the majority are in university medical centers. The length of training varies from one to two years and, generally, admission to the shorter programs requires extensive prior health care experience. At present these programs have produced over 250 graduates, slightly less than half of whom are being utilized within the university training them or are involved in training more assistants.

Standardization of programs is some distance away and this is generally thought to be, at this time, a definite advantage. Premature closure of these explorations in training programs may result in damage to this developing infant. As evaluation of the programs continue (and there are many innovations to study), it is reasonable to expect that an evolutionary process will result in a healthy, viable status. Continuing education would appear to be not only advisable but mandatory. This is a natural consequence of the shortened period of training.

The Florida junior colleges appear to have many advantages in providing the didactic portion of the curriculum. They are more flexible and responsive to need than the university structures; health related programs and health-core subjects are already existent in many of them, and there is a definite economy to be effected by utilizing this locus rather than the medical school.

There is another urgent reason why the basic training program should be in the junior college. The expressed need or demand for PA's will far outrun any reservoir of ex-corpsmen and others in the health care field.* Thus we must look else-

*See Dr. Fleming's article in this issue.

where for sufficient numbers of trainees, and to the junior colleges to provide them with didactic training.

Clinical training should parallel didactic curriculum. Some junior colleges would not qualify for training sites as they are located in areas without suitable clinical facilities. Furthermore, each junior college-based program need not anticipate supplying clinical training for all types of PA's. (Types meaning a PA in Pediatrics, Orthopedics, etc.) If, for instance, a total of 20 types is desired and five locations are suitable for training, it would obviously result in greater quality and economy should each site train four types. The didactic core curriculum should remain constant for all programs to help provide horizontal mobility.

Conclusion

The health care delivery shortage in Florida can be equated to health manpower shortage and can be localized primarily in the rural areas. With the increased demands and needs of people everywhere, however, even the physician in suburbia needs and wants help. The fact that the physician has, by habit or custom, performed all manner of repetitive tasks that do not require his education and knowledge has seriously impeded his efficiency in meeting patients' needs. The concept of Physician's Assistants, to relieve the physician of some of these tasks, has apparent merit in terms of quantity of health care. It is up to organized medicine and to educational institutions working with the practicing physician to see that quality of health care is not compromised.

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The Army has put into operation a plan to convert 400 enlisted medical corpsmen into warrant officer "physicians' assistants." The Army surgeon general ordered a call for applicants for the first such course opening in early 1972 at the Medical Field Service School, Ft. Sam Houston, Tex.

The Physician's Assistant
A Blessing or a Curse?

James W. Walker, M.D.

In recent months, much has been written concerning a new provider of health care. This individual has been called a physician's assistant, a physician's associate, a clinical-nurse specialist, a medical emergency technician, a MEDEX, a Medic, etc. The variety of names assigned to this person is as confusing as the programs designed to produce these individuals. Equally confusing is the future role of these individuals in the delivery of health care. Properly trained, certified and supervised this caliber of individual can be an invaluable extension of the busy physician in his day-to-day practice of medicine. Improperly certified, trained and utilized the same individual could end up being a poor deliverer of health care to the American public.

Originally the demand for a physician's assistant had not come from organized medicine. Nationally, the concept of a physician's assistant was developed, nourished and implemented primarily by the Bureau of Health Manpower Education of the National Institutes of Health and those medical institutions eager to share in the multi-million dollar bonanza created by the federal government. On the local level, the demand for physician's assistants is an echo of the voice of the consumer who is impatient with the present system of health care delivery. The consumer now demands, as a right, comprehensive medical care at any hour of the day or night of his choosing. In an over-simplified attempt to help solve the problems associated with availability of physicians for delivering this type of medical care, the creation of a physician's assistant is an easy solution to the problem as the consumer sees it but which might well create repercussions to be felt by the health care system for years to come. Though organized medicine has not created this category of health care workers, it is imperative that organized medicine step into the picture and assume the leadership to bring order out of chaos.

The Council on Health Manpower of the American Medical Association writing on April 19, 1971, stated, "At the present time there is generally no accepted standards and/or accreditation for these programs; rather, each has developmental plans, highly individualized, and destined to satisfy perceived institutional or community need. The absence of a common approach is partly explained by an attempt on the part of various programs to accommodate trainees with diverse educational backgrounds and experience. This has resulted in producing physician's assistants to function at different levels of responsibility and supervision. Consequently, in any detailed discussion of the physician's assistant concept it is necessary to define the particular level or function implied." At the present time there are some 57 functioning programs to train physician's assistants. There are another 100 or so on the drawing board which will be in operation within the next few months. There is little in common in these programs; they vary in length from a short course of 12 weeks in a community hospital to four years in a university setting. Few guidelines have been issued as to what a physician's assistant should do. A physician's assistant as defined by the House of Delegates of the Florida Medical Association and the American Medical Association is "A skilled person qualified by academic and practical training to provide patient service under the supervision and direction of a licensed physician who is then responsible for the performance of that assistant."

Many state legislatures are currently concerned with the problem of how to effectively accommodate the physician's assistant legally within the present system. More than 30 states have enacted or proposed legislation to regulate the physician's assistant. In our own state, the legislature passed the Physician's Assistant law which became effective July 1, 1971. As in most states, the certification of a physician's assistant to the practicing physician will be done by the State Board of Medical Examiners. Conceivably, these boards in the various states could spend more time with the problems of training the physician's assis-

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tants in various schools at differing lengths of time with little or no standards of accreditation than they will in licensing physicians to practice medicine. Few Boards of Medical Examiners possess the knowledge, experience, staff, or the resources that will be required for such a tremendous task. Traditionally, the American Medical Association has assumed the responsibility of developing criteria for the training and certification of allied health workers and at the present time the Council on Health Manpower of the AMA is very much concerned with this program. The swiftness with which the consumer-sponsored bills have passed state legislatures caught organized medicine unprepared to issue those criteria desperately needed in the formation of a training program for these individuals. One can only estimate the time lag as one to two years.

At the present time there exist two national organizations to represent the evolving physician's assistants. One is the American College of Physician's Associates which is based in North Carolina. The second is Florida based and has recently announced its formation as the American Association for Physician's Assistants. It would appear to this author that here exists a golden opportunity for the American Medical Association to lend this emerging group of health providers guidance, leadership and supervision based on years of experience in accrediting medical schools and other schools for auxiliary personnel. To this end, I feel that the American Medical Association should create an appropriate department for physician's assistants to regulate these training programs and develop the criteria for certification of these individuals as they finished training. This would provide horizontal mobility for these individuals once they are in operation in the field. Such safeguards would also insure the physician to whom the assistant is certified that this individual possesses a certain safe level of basic knowledge at the time he or she completed the prescribed curriculum. These guidelines for certification could then be adopted by the various State Boards of Medical Examiners relieving them of a tremendous burden for which they are ill-prepared.

The hour is late. Unless organized medicine at the national level takes immediate steps to safeguard the public, we will have perpetrated a second rate practitioner of medicine who may well become an independent practitioner as his numbers and influence grow within the various states. Properly trained, certified, and supervised, the physician's assistant can be an asset to the physician and the patient. Without checks and balances, these persons will be a deterrent in the delivery of safe medical care. Which shall they be—a blessing or a curse?

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In the August issue we planned to have the Oath of Hippocrates printed on offwhite paper resembling parchment so that it would be suitable for framing. Due to circumstances beyond our control, it did not appear that way but our printer graciously has printed 100 copies according to our original intent. These are available and will be mailed free to anyone so wishing on a first come first served basis.—Ed.

Physician's Assistants in Radiology

Paul D. Willis, M.D.

Radiology was probably the first medical specialty to use extensively and ultimately to become completely dependent upon physician's assistants, since all radiologic technologists are truly physician's assistants.

Since radiologic examinations and later radiotherapy and isotope examinations became commonplace, no Department of Radiology could operate without the assistance of the radiologic technologist.

However, as is true in all medical specialties, the supply of radiologists has not kept up with the demand for their services. For this reason, duties and services previously performed solely by radiologists are being delegated to technologists in ever-increasing numbers.

Perhaps the first of the duties to be delegated were administrative ones, with the hapless chief technician having bales of routine paper work deposited on his desk. This trend began 20 to 30 years ago, depending on the area of the country and the department under discussion.

More recently, radiologists have carefully examined the manner in which their time was spent, and have tried to delegate to their assistants those things which are most time-consuming and which could reasonably be performed by a well-trained nonphysician.

Probably the most time-consuming task of most radiologists is the fluoroscopic examination of patients, which occupies the entire morning for one or more radiologists in practically every hospital and private office in the country. While many radiologists recoil in terror or in anger from the suggestion that a technologist could perform an adequate fluoroscopic examination, it is becoming increasingly apparent that technologists can do just that.

For about 10 years, careful studies in several institutions have assessed the ability of technologists to perform upper GI series, barium enemas, and cystograms. These studies have revealed that if the technologists are required to take a routine number of standard projections of all portions of the examination, the radiologist can adequately interpret about 90 percent of the examinations on the basis of films alone. In a few patients, it is essential for the radiologist himself to visualize the motion of the organ being studied, such as when carcinoma of the stomach is suspected and peristalsis must be evaluated. In institutions where a videotape recorder is available, all of the morning's fluoroscopy can be recorded, and the radiologist can review those examinations where he desires to see peristalsis. In institutions where such a recorder is not available, the radiologist need re-examine only those few patients where the technologist's films are not entirely adequate.

Once this practice becomes widespread, we will have the effect of increasing the time available to radiologists by about 50 percent. I think most people would agree that the radiologist's time is best spent consulting with referring physicians and interpreting radiographic examinations. Neither of these functions can be performed by a technologist, nor will they be performed by a computer in the near future.

Now that it is established that technologists can perform some duties once held sacred by radiologists, many other duties currently being performed by radiologists are being critically studied.

Not only does the increasing responsibility placed on technologists give the radiologist more available time, but it makes the technologist's work considerably more challenging, and thus tends to keep him or her at work in the field of medicine, rather than becoming an industrial "drop-out."

The first physician's assistants were not called that, but the incredibly busy general practitioners of the early and middle parts of this century had nurses who did an exceptional number of things for them, since that was the only way these physicians could survive. I bring this up because these original physician's assistants were trained by the individual physicians themselves. In the same manner, most physicians, no matter how highly specialized they are, can train their own assistants to assume an ever-increasing portion of their work load and responsibilities. All that is necessary is the selection of a responsible, mature, and intelli-

gent person and a sufficient amount of time to train this person initially. If radiologists were to wait for the four or five academic institutions which are currently training technologists to perform fluoroscopy, then it would probably be about 75 years before such technologists were available to the majority of radiologists. However, any competent radiologist can train a good technologist to assist him, and by the same token any other competent physician can train an appropriate person to assist him in ways which will become apparent to him only if he critically analyzes the ways in which he spends his time each day.

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Educational Programs

Over the past five years there has been an accelerated interest within medicine to prepare individuals to perform a variety of functions in the provision of personal health services that traditionally have been associated with physicians only. Programs have been developed to prepare students to work with physicians within a given specialty, such as anesthesia, orthopedics, pediatrics, and surgery; others prepare students for general medical assistance in family and internal medicine practices. The graduates of these programs are identified by a variety of names, the most common among them being the physician's assistant. Within the general classification, one also finds MEDEX, clinical associate, medical specialty assistant, medical services associate, anesthesia assistant, surgeon's assistant, orthopedic assistant, and other descriptive titles.

Education and training programs for the preparation of physician's assistants vary widely in their objectives and consequently in their length. Almost two-thirds of the education and training programs are located east of the Mississippi River, a distribution comparable to that of the nation's population. Of those programs in operation, the majority are designed for 24 months of study, with varying proportions of that time being devoted to didactic study and clinical learning experience. MEDEX, a program initiated at the University of Washington School of Medicine, admits only discharged medical corpsmen who have been prepared for and have served in independent duty stations, that is, military posts having physician personnel. Probably as a consequence, the 15-month MEDEX curriculum is among the shortest, with three months of intense didactic study at the University Center hospitals and the remaining 12 in a clinical preceptorship with the physician who has made a tentative commitment to employ the student on completion of his training.

Criteria for admission of students vary considerably, with prerequisites ranging from a high school diploma, or its equivalent, to a college degree and from no work experience to three years in health services. Nurses and practical nurses who wish to become physician's assistants are accepted in several programs.

The majority of programs receive applications from a much larger number of qualified applicants than can be accommodated. At present there are approximately 15 programs in operation, with an almost equal number in various stages of planning. Several of the latter will be accepting students in 1971. These programs have graduated approximately 100 students. Some sources predict the total number of graduates will be nearly 400 by the end of 1972.

Physician's assistant programs are conducted under the auspices of universities, colleges, and medical centers. Graduates of most programs receive a certificate. Four programs (Alderson-Broaddus College, University of Colorado, Duke University, and Wake Forest University) grant a bachelor's degree. Emory University grants a master's degree to the anesthesia assistant graduate.—L. M. Detmer, assistant director, Bureau of Manpower and Education.

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The Specialist and His Nurse
Unused Sources of Primary Medical Care

William H. Langhorne, M.D.

The quest for medical manpower has become as fashionable in the lay press as in current medical literature. Physicians are witnessing a near frantic search for the medical care demanded by a dissatisfied American public. Medical educators, politicians and the well-informed have all provided a barrage of solutions, the number being ample testimony to the lack of a practical and realistic answer. The public has been exposed to biased statistics, criticisms and echoing cries for "the right" of medical care. Plans to build more medical schools, enlarge classes, streamline the medical curriculum and produce physical assistants or technical specialists do not provide an ever-expanding population with the immediate attention it demands. Such proposals are costly, handcuffed by the lack of financial support, and submerged in committee study and evaluation.

One cannot reflect on the history of the American medical system without acknowledging the trend toward specialization and the gradual extinction of the general practitioner or the old-time family doctor. Medical student preference for specialization has been motivated strongly by the educational model; it has been subtly encouraged by teachers and has evolved by necessity to meet the demands of a complex science. Efforts to restir the ashes of the old family doctor in the form of family physicians or generalists have encountered these trends as insurmountable obstacles.

Primary Care by Specialists

Today's specialist is prepared, however, to deliver a degree of primary care to his patients that would greatly reduce the current demands of the public for more medical manpower. He possesses an unused talent to attend the problems of his patients; problems that are, for the most part, relatively minor and needing only an interested and attentive advisor. That a specialist who has completed a residency can function effectively as a specialist-generalist has been well illustrated for many years by the internist. With the same training and internship as his surgical colleagues he has assumed the role of family physician and performed the task reasonably well despite his professed interest and specialized training in internal medicine. Granted his training prepares him for the role easier than some specialties; all specialists regardless of how narrow their primary interests may be are still capable of providing additional services for their patients. The skill that is often needed may require little more than that of a fourth-year medical student or intern. The internship has prepared them all to provide certain aspects of primary medical care for their patients, be they ophthalmologist, cardiovascular surgeon or obstetrician.

Today, instead of acting as advisor, generalist or personal physician, the specialist usually refers his patient to his "family doctor" (when often no such being exists!) or perhaps to an internist for his "medical problem." The problem may be nothing more than a tension headache or some functional disorder that could be alleviated with a few moments of listening and reassurance. Instead, that patient may wander needlessly in search of help, anxieties growing, psychosomatic stresses abounding and pocketbook withering as a result of a disinterested "super-specialist."

Certainly a great proportion of the problems seen by today's generalist are primarily psychosomatic or functional in origin. It is also likely that these and other relatively minor problems compose the bulk of physician-referred cases seen by other specialists. No specialty is exempt from this practice of instant referral; the internist sends his patient with a minor backache to the orthopedist; one surgeon advises the patient with "indigestion" and a normal G.I. series to see a gastroenterologist. The miserable soul with a tension headache may leave her gynecologist after hearing that "it's not related to your pelvic organs" and pass before the internist, neurologist or neurosurgeon and even the psychiatrist before she accepts her fate or joins the ranks of a disillusioned public.

Such experiences not only damage the image of the doctor but consume precious patient-physician time and dollars. In every specialty there is opportunity to assist patients with minor problems outside of a given field, to either treat or advise them, and to significantly reduce the demands of these patients on other specialists. In other words, if the specialist were only willing to function as his patient's "family doctor" for a few minutes he might effectively fill a void created by our own educational system.

The Nurse Specialist

Within the framework of today's medical system the physician and his nurse have the capabilities of expanding health care to meet the needs of the public. The physician specialist is equipped with the fundamental background with which he may deal effectively with the majority of his patient's problems; the well-trained nurse who has established patient confidence and loyalty can likewise serve in a yet unfulfilled way. Once a patient senses that the physician and his nurse both share an interest in his care, he is willing to talk freely with and accept advice from the well-trained nurse. Excellent nurses are abundant today and capable of serving the public as well if not better than the currently popular physician assistants. They have proven their skill and reliability in the field of intensive nursing care, and at this time are better prepared to move into the role of assistant or nurse-specialist than any other group. The expensive and prolonged training needed for the physician assistant could be effectively side-stepped by shorter training courses for the talented nurse.

Unused manpower is therefore available at this moment that could immediately alleviate many of the problems of the current physician shortage. How could this come about at the community level and how would it be implemented? One approach could be spearheaded by local medical societies: specialists could prepare general programs of instruction for the common and minor problems that exist within their own field and the current methods of therapy; such programs could provide a means by which other physicians would be refreshed in other areas of medicine and provide a source of consultation when needed (For example, the ENT specialist could instruct his colleagues in such problems as sinusitis, otitis, etc. . . . the internist could outline the approach to viral respiratory problems, etc. . . .). Imagine the time and dollars that would be saved if all physicians were willing to advise their patients as to how one should deal with the common cold!

Conclusion

The proposal is admittedly simple; its success would depend on the willingness of today's specialist to step down from his pedestal and provide primary care to a public that now demands action. It could be immediately effective, at no additional cost and requiring no new personnel. The specialist and his nurse hold an answer to the nation's health crisis; local medical societies may be the structure in which this concept could grow and multiply. There exists an undeniable obligation, born in the concept of specialization, nourished by our own educational system and long ignored. The opportunity for the specialist to recapture the dignity of medicine and still preserve the sophistication of his art may not linger much longer.

▶ Dr. Langhorne, 14 West Jordan Street, Pensacola 32501.

Good deeds bear fruit, and in the fruit are seeds that in their turn bear fruit and seeds. Great thoughts are never lost, and words of kindness do not perish from the earth.

—Philosophy of Life

Continuity of Care for the Home Dialysis Patient

Mildred Britt, R.N. and Ruth Gage, R.N.

One of the most spectacular feats of modern science has been the creation of artificial organs capable of sustaining and prolonging life. Many persons who suffer from the effects of a chronic disease now have a chance to lead a satisfying and productive life through the use of these new devices.

A dramatic illustration is the development of the artificial kidney. This device removes the accumulation of poisonous waste products from the blood, normally eliminated by healthy kidneys, and allows the individual with renal failure to live a very nearly "normal" life.

Today it is not unusual to see an artificial kidney in the home of a patient who has end-stage renal disease. An ever increasing number of these patients are leaving the protective environment of the hospital. There are several factors in the decision to send a patient home: lack of available facilities to dialyze the number of patients needing this treatment; prohibitive cost of treatment within the hospital; ability of the patient to dialyze more frequently and on a schedule suitable to his own convenience.

Training for Patient

Once the decision is made to send a patient home with an artificial kidney, the patient and his spouse begin an intensive learning experience. First, the patient is taught the principles and theories of dialysis; then the care of his cannula and the mechanics of the artificial kidney. After the patient has become proficient in every aspect of dialysis the spouse is taught these same procedures. The patient should remain the responsible member of the home dialysis team with the spouse acting as his assistant. The purpose for insisting that the patient remain in charge is twofold. First, so that the patient can maintain his own identity without a role change. Second, should an accident occur while dialysis is in progress, the spouse, were he or she in charge of the procedure, might be overcome with feelings of guilt.

Mrs. Britt is supervisor of the Dialysis Unit at the Veterans Administration Hospital, Miami, and Miss Gage is Public Health Nursing Consultant, Division of Health, Department of Health and Rehabilitative Services, State of Florida, Jacksonville.

During the learning period the patient receives a manual that details all procedures. He uses this manual for reinforcement of the learning process or for easy referral when attempting to follow seldom used procedures. During the time the patient and his spouse are learning about dialysis a check list is used and as each element is taught and learned it is checked off. In this way both the patient and the instructor know that no important or minor aspect of dialysis has been deleted from this teaching-learning process.

To involve a patient in this intensive teaching program is unique to medical science. The patient is taught to perform duties that are carried out in hospitals by physicians, nurses, laboratory technicians, and dialysis technicians. The patient is taught about his disease and how his disease affects him and his family. He is taught to be aware of symptoms of uremia, anemia and bone disease. He learns about his blood chemistry and how to control the electrolyte balance through dialysis, diet and medication. He learns about fluid and dietary restrictions. In fact the dialysis patient truly becomes "The captain of his ship—the master of his fate." This is indeed a departure from the traditional concept of patient care.

When the patient is discharged from the hospital, he and his family are faced with a seemingly overwhelming set of problems. The person most suited to help the patient and his family cope with these problems is the public health nurse. Her skill, expertise and knowledge provide a link between the family, the physician and the dialysis center.

Role of Public Health Nurse

Except for the mechanical and technical matters that concern the dialysis equipment, the kinds of problems the patient and his family have are often no more unusual than those confronting any person who is living with a chronic illness. These are the issues that the public health nurse has been taught to deal with on a daily basis.

Early in 1970, in Miami, a workshop was presented for the public health nurses and visiting

nurses of the state of Florida designed to orient them to dialysis and to acquaint them with some specific difficulties that the dialysis patient and his family will experience. During the past year public health nurses have been visiting patients sent from the Dialysis Center at the Veterans Administration Hospital in Miami. These visits have proved to be very beneficial for the patient and his family in helping them to solve their problems in daily living. The written report to the patient's physician and to the Dialysis Center provides a continuity of care and an insight into the needs of the patient and his family. The following examples illustrate the effectiveness of the public health nurse's visit.

Case 1.—This young man and his attractive wife were apt students in the dialysis center. Both were quite capable of learning all dialysis procedures and it seemed to the instructor that this family would be able to perform dialysis in the home without difficulty. Nevertheless a referral was submitted to the public health nurse so that visits could be made frequently. After the patient had been home one month, the nurse made her first visit. She found a completely disorganized household. The wife, either through fear or anxiety, was not helping her husband perform any of the required tasks. The husband, carrying the whole burden, was spending most of his nonworking time preparing for dialysis. Each hour he spent concerned with things regarding his dialysis was one hour less he was spending with his family. Because he could not organize his time well he was spending an inadequate amount of time being dialyzed. The nurse gave the wife the support, encouragement and approval she obviously needed to help the husband and on subsequent visits recognized the need for additional professional help because of their continued inability to function under the burden of dialysis at home. Arrangements were made with a psychiatrist and now both the husband and wife are making a determined effort to better understand one another and to make a better adjustment to life.

Case 2.—This young man was a difficult student to teach in that he thought he knew about everything and therefore did not want to listen to the instructor. His wife was a good student but she remained extremely apprehensive throughout the training sessions. Therefore, on the nurse's first visit to this home she encountered several problems. The patient's appearance indicated he was quite anemic. The record showed his hematocrit had dropped from 20% to 16% and he stated he felt quite fatigued and was short of breath. In answer to the nurse's question concerning blood transfusions the patient said, "no one told me a blood transfusion would make me feel better." When the nurse alerted the Dialysis Center to this problem the patient was recalled to the Center for a review of the lessons on blood transfusions.

At the time of the nurse's visit to their home the patient and his wife verbalized their feelings of apprehension at being away from the hospital setting. They expressed disappointment at not being able to have the doctor visit the home during dialysis and what to them seemed to be his lack of interest because he did not wish to see the patient every week. After consultation with the physician the nurse helped the patient and his wife achieve a more comfortable but less dependent and demanding relationship with their physician.

Case 3.—This patient and his wife had made a good adjustment to home dialysis and had experienced no difficulties in any aspects of the procedures. The wife stated that in performing dialysis at home they had attained an interdependency and resulting closeness. During visits to the home the nurse learned that the patient was experiencing frequent episodes of chest pain, sleeplessness and increasing irritability. It became apparent that these problems were being aggravated by a disturbing situation in the family involving the use of drugs by the two teenage sons. She encouraged the patient to share this problem with his doctor since it was obvious his well-being was disturbed.

Case 4.—On a visit to this dialysis patient the public health nurse informed the patient that there was a serious problem with fluctuating water pressure which might decrease the efficiency of the dialysis process. She also informed the Dialysis Center of this development. The water company was notified and measures were taken to provide constant water pressure to this home.

These cases are examples of the effectiveness of the public health nurses' visits to the home dialysis family. During their visits they are often able to discern many situations within the family that adversely affect the patient's well-being. The nurse in the home can provide the support and reassurance that these patients need when they are learning to live with an artificial kidney. She provides an opportunity for the patient and his family to verbalize their feelings of anxiety and frustration and to discuss difficulties that the family encounters when one member is living with a chronic, irreversible disease.

The physician caring for a dialysis patient needs only to submit a referral to the visiting nurse association or to the public health nurse in his community to initiate the visits. Both he and his patients and their families will benefit.

Summary

During the past year the public health nurses in Florida have been visiting patients sent home with artificial kidneys from the Dialysis Unit at the VA Hospital in Miami. The effectiveness of these visits has been demonstrated. The reports submitted by the visiting nurse to the physician and the Dialysis Unit have been beneficial in providing improved care to these patients. Equally important are the verbal reports from the patient and his family which express their appreciation for someone in their community who is aware of their problems and who can come to their home to discuss them.

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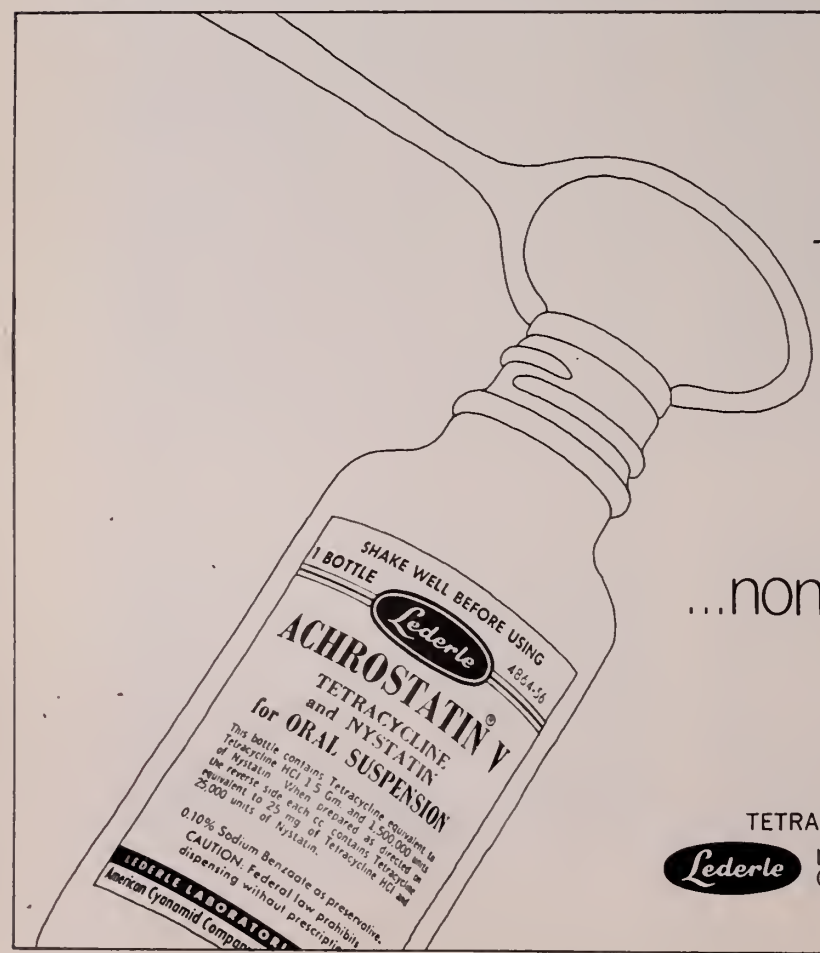
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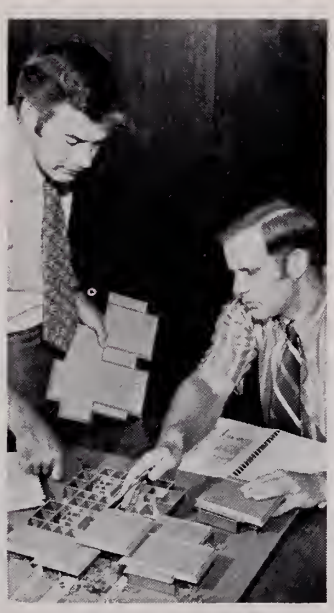
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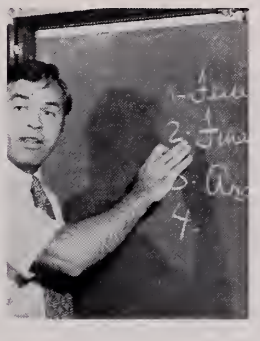
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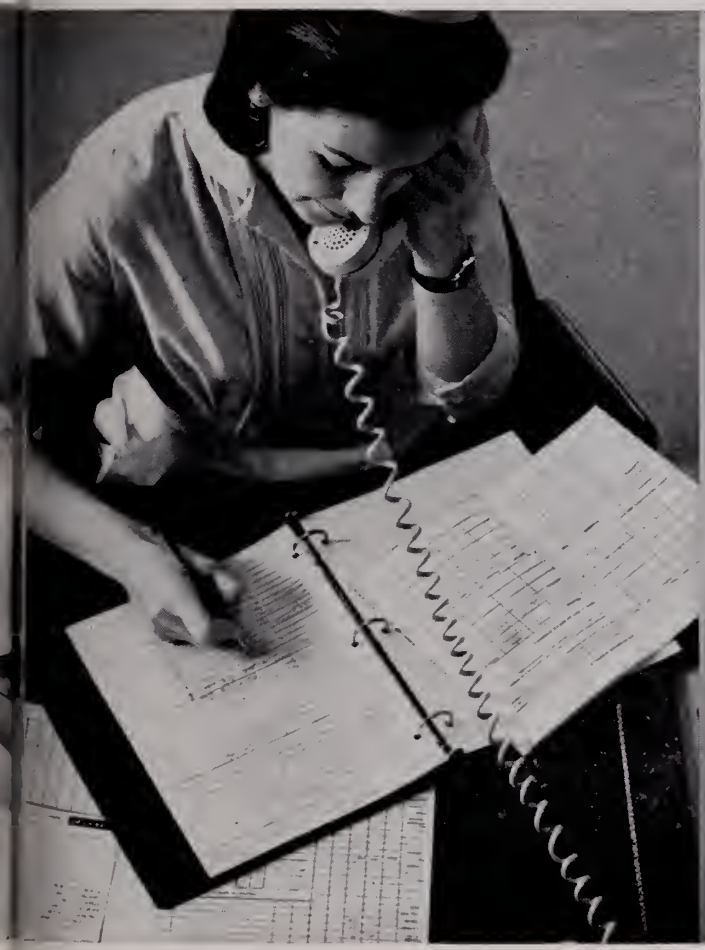
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Medical Education—Today and Tomorrow

Kenneth E. Penrod, Ph.D.

Many things of interest to Floridians are happening in the active field of physician production. An up-to-date status report would seem to be in order.

Medicine has an exceptionally good track record in making available detailed statistics of historical value as well as current interest. For the past 70 years an annual report prepared by the Council on Medical Education of the American Medical Association has been published in the Journal of the A.M.A. The most recent issue of this report[1] has been the source for many of the data of this paper.

The Association of American Medical Colleges has been making available detailed statistics on students for many years, especially in an annual report, "Study of Applicants," published in the Journal of Medical Education. In addition, the latter organization in recent years has been carrying out, or sponsoring, many worthwhile studies which have revealed important data. Finally, to an increasing extent the line between allopathic and osteopathic medicine is becoming blurred and the excellent statistics published annually by the American Osteopathic Association have become more widely known.

There is not universal belief in a physician shortage in the U.S. Such able analysts as economist Eli Ginzberg have made a good case for the existence of only a "paper shortage" of physicians.[2] Nevertheless the overwhelming majority of people, especially those who wait long hours to see a physician or are unable to find a physician within an acceptable distance, are convinced there is a doctor shortage. So, too, are many members of that group of practitioners shown in a recent survey to average 64 hours per week on the job.

In any event the wheels are in motion to bring about a sizeable increase in the number of medical graduates in this country in the next few years.

The age of expansion in medical education can be said to have begun with the Surgeon General's Report, "Physicians for a Growing America," published in 1959.[3] That report called for a coordinated national effort to increase the number of physician graduates by 3,600 or to 11,000 per year by 1975. What has happened since?

	Number Physician Graduates (M.D. & D.O.)
1960	7,508
1965	7,804
1970	8,800

Meanwhile considerable "tooling up" has been underway which is reflected in the increase in the number of entering students to medical schools in the last five years. That number (M.D. and D.O.) increased from 9,209 in 1965 to 11,983 in 1970.

Since it will be the entering class of 1971-72 which will make up the bulk of the 1975 graduating class there is now reasonable assurance that the goal of 11,000 graduates in 1975, which looked to be so formidable in 1959, will be surpassed.

But now we are told that is but a start. In the newly released special report of the Carnegie Commission on Higher Education titled "Higher Education and the Nation's Health—Policies for Medical and Dental Education"[4] it is stated (p. 5), "We see a need for expanding the number of

Dr. Penrod is Vice Chancellor for Medical and Health Sciences, Office of the Board of Regents, State University System of Florida.

places for training doctors during the next decade by 50 percent, and of dentists by 20 percent." A 50% increase over the 11,983 beginning places in medicine in 1970 will be an added 6,000 for a total of approximately 18,000 by 1980.

A related goal has been announced by the Association of American Medical Colleges (AAMC) as its "Bicentennial Anniversary Program" which aims for 15,000 entering places in the nation's medical schools by 1976.[5] When to this figure is added the growing number of places now planned for schools of osteopathy (which was 633 in 1970-71), this figure comes into line with the projected 18,000 total for 1980.

Mention should be made at this point that in no small measure the Physician Augmentation Program of the U.S. Department of Health, Education, and Welfare has made possible much of the expansion to date and is being counted upon for major support to achieve the goals of the future. In terms of visible returns, this program can be classed among the more successful of those undertaken by the federal government.

A socially significant aspect of the medical school expansion is the marked increase in opportunities for members of minority groups and for women to study medicine. Afro-Americans number 697 in the current first year class, an increase of 257 over 1969-70. They now make up 6.1% of the first year class. American Indians increased from 7 to 11; Americans with Spanish surnames from 44 to 73; Orientals from 140 to 190. Puerto Ricans increased from 96 to 113, including those at the University of Puerto Rico.

Women make up 11% of the entering class, up from 9.1%. The increase of 296 women brings the number to 1,224, a gain of 31.2% over last year compared with a gain for male students of 6.8%.[6]

Applicant Pool

Will there be an adequate number of capable students to fill the proposed additional places in entering medical school classes? Current data[7] would indicate there is little cause for alarm. At present the concern is tragically far in the other direction. Too many capable, motivated students are being denied admission because of too few places. The following table will reveal what has been happening over the last decade.

Year	No. Applicants	No. Admitted	% Admitted
1959-60	14,952	8,512	57
1961-62	14,381	8,682	60
1963-64	17,668	9,063	51
1965-66	18,703	9,012	48
1967-68	18,724	9,702	52
1969-70	24,465	10,514	43
1971-72	26,500 (Est.)	11,800 (Est.)	44 (Est.)

While it would be wrong to presume that all of those denied admission are first-rate candidates, it would be equally wrong to presume there is not a huge pool of talent available that could add several thousand additional medical students with essentially no sacrifice of standards. Also current projections of continued growth of the applicant pool predict 34,000 by 1980.[7]

It is ironic that a large proportion of today's rejected applicants present credentials which only a few years ago would have provided them ready admission. One of the significant measures of a medical student candidate's qualifications is the Medical College Admissions Test which is given nationally twice per year and is required for admission by all medical schools. An indication of the steady improvement in these test scores is shown below:

Mean Scores of all Accepted Candidates

Year	Verbal Ability	Quantitative Ability	General Information	Science
1959-60	529	527	527	527
1961-62	533	538	522	537
1963-64	537	551	549	545
1965-66	541	583	565	549
1967-68	554	596	566	565
1969-70	562	603	569	577

Along with increased selectivity of medical students has come a gratifying decrease in dropouts before graduation. Exact figures are difficult to assemble, but a reasonable estimate can be made by looking at the number who, for any cause, do not graduate within four years after admission. After a decade (1959-68 graduating classes) in which dropouts ranged between 10% and 13.7%, the apparent attrition dropped to 8% in 1969 and to 6.7% for the 1970 class.

Foreign Schools

One of the consequences of a large pool of disappointed medical school applicants is a turning to foreign medical schools as a "last ditch" alternate. According to a recent report of the Institute of International Education, "Open Doors," there were 3,022 U.S. citizens studying for medical degrees in foreign countries in 1968-69. About three quarters of these students were in Canadian and European schools and most of the remaining were in Mexico.

Success does not come easy for the student forced into this route. Medical education is an arduous undertaking at best, but pursued in a strange country and in an unfamiliar tongue it requires great dedication and ability. U.S. citizens, as well as foreign nationals, must pass a strenuous examination of the AMA-sponsored Educational Council for Foreign Medical Graduates (ECFMG) to achieve eligibility to then take a state licensure board examination in the U.S. Even so, some 200 to 400 U.S. citizens have been gaining an initial U.S. license to practice via this route each year. In addition a small number (23 to 43) have been successful in gaining advanced standing admission to a U.S. medical school each year.

In July 1969, a study by Mason and Ruhe[8] reported that careful follow-up of such transferees showed that they did every bit as well after transfer as their counterparts who had enrolled in those schools as freshmen. Partially as a result of this study, together with a general lessening of rigidity among medical schools, a coordinated transfer system (COTRANS) was established last year to expedite transfer of U.S. citizens in good standing in foreign medical schools to advanced standing in U.S. schools. This usually involves taking Part I Examination of the National Board of Medical Examiners at certain foreign centers. In 1969-70 a total of 76 students were accepted via this route, a number almost double that of previous years.

Other university degree programs provided an additional 64 students who were admitted to advanced standing in the medical schools last year. This figure, too, was nearly twice the number permitted to transfer in former years. As the rigidity of the medical curriculum lessens and the "basic sciences" of medicine become "basic sciences of all the health professions," possibilities for upper class transfer can be expected to increase. The trend of federal thinking is to shift the subsidy away from support of new entering places in favor of a capitation support of medical graduates. Such a plan will doubtless encourage consideration of qualified candidates for advanced standing.

Financial Consideration

The factor of cost unavoidably enters into medical education, both for the student and for the school. During the 1969-70 academic year the 46 privately owned medical schools charged an average of $2,246 per year for tuition and fees. All but four of these made no distinction between place of residence, but in those four (Louisville and three in Pennsylvania) owing to large state subsidies, resident tuition was more nearly equal to that charged by tax supported schools. The highest tuition among the private schools was $2,750 (Johns Hopkins); the lowest $1,143 (Howard). At the University of Miami it amounted to $2,000.

Among the 55 public, or tax supported, schools the average charge for residents of that state was $742 and for nonresidents it amounted to $1,480.

The extremes of in-state tuition were $206 (Hawaii) and $1,300 (Tennessee). For out-of-state students the range was from $576 (Puerto Rico) to $2,700 (Tennessee). The charges at the University of Florida were $900 and $2,100.

While the cost of attending medical school once greatly exceeded that for most other types of education, this is no longer true. Even the tuition charged at the private medical schools is frequently exceeded by their own general colleges and even in some instances by preparatory schools.

Still, costs to attend medical school force more than half of all students to seek financial help. Last year 53.5% of the medical students borrowed an average of $803 (total: $18.4 million) and 40.8% received an average of $898 in scholarship support (total: $14.4 million).

Medical Centers

Medical schools are complex institutions. Too often the size of the faculty and the total dollar support are related only to the number of pre-M.D. students enrolled. The approximate total teaching responsibilities of the U.S. medical schools, and a look at five years ago for comparison, is given in the following table:

	1964-65	1969-70
Medical Students	32,428	37,669
Interns	4,186	5,319
Residents	14,761	21,345
Basic Science Graduates	5,509	8,060
Basic Science Postdoctoral	1,297	1,794
Clinical Fellows	4,073	2,828
Other (medical student equivalent)	10,678	14,144
TOTAL	72,932	91,159
Full-time Faculty	15,514	24,706

Osteopathic Schools

Previous reference has been made to osteopathic medicine and to the fact that for many purposes no distinction is made between the M.D. and the D.O. degree. The two educational programs remain separate, but similar. The total number of students enrolled in osteopathic schools

was small (1,977) compared with M.D. schools (37,669) in 1969-70.

Last year six osteopathic colleges, including the first new one in many years, at Michigan State University, enrolled 577 beginning students and graduated 433 from the older five institutions. In the current year another new school, Texas College of Osteopathic Medicine, Fort Worth, has enrolled its first class of 21 students.[9]

The 557 beginning students last year were selected from a pool of 3,412 applicants. Slightly over 96% had completed four or more years of undergraduate college work and 87% had earned baccalaureate or advanced degrees. These figures compare quite favorably with those accepted by the M.D. granting schools.

Florida colleges supplied only four of the 577 beginning osteopathic students last year and of the total predoctoral enrollment of 1,977, forty were residents of this State.

The Florida Situation

Last year 251 Florida residents began study for the M.D. degree in U.S. medical schools, 180 in a total of 24 different privately supported schools and 71 in 13 tax supported schools. Only 12 non-Florida residents were accepted at the University of Florida College of Medicine and nine at the University of Miami School of Medicine. In all, a total of 399 Florida residents made application to one or more medical schools in 1969-70 without success. Of the total pool of applicants from Florida, 38% gained admission compared with the national average of 43%.[7]

Detailed statistics are not yet available for the class that entered last fall (1970) nor for the class now being selected for next fall (1971). Progress is being made, however, in expanding the capacity of our own in-state institutions to accommodate more of those who desire a career in medicine.

Next fall (September 1971) the new school at the University of South Florida will enroll its charter class of 24 students. At the same time the new multicampus Statewide Medical Education Program is expected to get under way with the teaching of some "first year equivalent" medical students in the combined plan of Florida A&M and Florida State Universities. The number of such students who will be prepared to join their peers in the second year classes of medical schools in 1972 is not as yet determined both because of uncertainties of funding and of progress of the students in a highly flexible system.

Meanwhile, both of the existing medical schools of the state are expanding. The University of Miami School of Medicine is in the midst of a gratifying period of growth following completion of certain new facilities. The increase has been both in more students for the first year class and increased transfers to upper classes, both of which will soon reflect significantly in the size of the graduating classes.

The growth in opportunities to begin the study of medicine within our state can be seen in the following table. The estimated figures for 1971 are not yet final and are subject to availability of increased funds.

	Size of First Year Classes		
	Fall 1969	Fall 1970	Estimated Fall '71
University of Miami	105	117	130
University of Florida	64	67	70
University of South Florida	—	—	24
Florida A&M-Florida State Universities	—	—	15
Totals	169	184	239

If the fall 1971 expectations materialize there will be an increased enrollment approaching 55 which represents the equivalent of another medical school nearly the size of the one at the University of Florida. Even with such increase in enrollment the pool of disappointed applicants for whom no place exists is discouragingly high. Florida, along with the other states, must look to new and imaginative ways to expand further, and rapidly, its medical education opportunities.

Licensure

The final step in the long and involved process of preparation for the practice of medicine is the licensure examination. Licensure is the prerogative of the individual states, each of which has a Board of Medical Examiners. For statistical purposes the boards of the 50 states are joined by those for Guam, Puerto Rico, District of Columbia and the Virgin Islands.

In calendar 1969 first time licenses were issued to 9,978 new physicians (M.D. only). Of these 2,307 (23.2%) were graduates of foreign medical schools.[10]

A great many physicians hold license to practice in more than one state. Hence the total number of licenses issued in 1969 to practice medicine by the 54 Boards was 23,662. Of this number, 951 were issued by the Florida Board of Medical Examiners, a number exceeded by only three states.

In all, the Florida Board examined 1,081 candidates in 1969.

Source of Medical Education	State of Florida Candidates	Passed	Failed
U. S. Schools	729	668	61
Canadian Schools	7	6	1
Foreign Schools	343	275	68
Extinct Schools	2	2	0
	1081	951	130

Those U.S. medical schools from which the largest number of candidates came were:

Miami	78	Ohio State	19
Florida	47	Duke	16
Jefferson	25	Indiana	16
Tulane	22	N.Y. University	15
Emory	21	State U.N.Y., Brooklyn	14

Twenty nine percent of the Florida licenses were issued to graduates of foreign schools, compared with 23.2% in the total U.S.

A significant change occurred in the Florida licensure procedure in mid-1969. Prior to that time the written examination was in two parts, one covering the basic sciences of medicine and the other the clinical aspects. The basic science requirement was dropped beginning with the July examination that year (the exam is given twice per year: January and July). The impact of this change in licensure requirement is seen in the following table:

	No. Examined
1968	736
1969	1081
1970	2353

Conclusions

In "Higher Education and the Nation's Health," the Carnegie Commission on Higher Education has stated:

> The U.S. today faces only one serious manpower shortage, and that is in health care personnel. This shortage can become even more acute as health insurance expands, leading to even more unmet needs and greater cost inflation, unless corrective action is taken now. It takes a long lead time to get more doctors and dentists (p. 2).

In this paper an attempt has been made to show where we are, and are headed, nationally and locally, in physician production. To achieve the goals of greatly increased physician education —worthy goals both from the standpoint of producing more physicians and providing more opportunities to pursue a medical career—the combined resources of the federal, state and private sector must be marshalled.

In Florida's Statewide Medical Education Program we have plans to focus much combined effort to realize significant gains over the decade of the 70's. Florida may well emerge as a model for the nation in how to achieve success by really trying!

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▶ Dr. Penrod, 107 West Gaines Street, Tallahassee 32304.

Consumer Price Index for 1970 shows all items up 6%; services, 8.1% and MD fees, 7.5%.

New Challenges for the Medical Graduate

Alfred Angrist, M.D.

Being asked by the senior class to speak on this occasion, so important to you and to your families, is indeed flattering; I am not unmindful of the honor. A pathologist can say, "It warms the cockles of my heart," both the right and left auricular appendages.

Forgive me if I speak earnestly to you. Time will permit the presentation of only three items for your consideration; these will be presented in the broadest and most general terms. Therefore they may sound like clichés; they are meant to be more.

Personal Relationship

First I urge that you hold fast to the professional status you have achieved this day. This can best be achieved by diligent care of and concern for the patient as well as his disease. Science and humanity are the pillars on which any edifice of good medical care must rest. Apply your abundant knowledge effectively and cure many, but comfort all. To calm and help the anxious patient, to see the face of a student or a colleague light up with understanding, these are the supreme joys of a physician.

It is not in union negotiations that your independence and security lie, but rather in fostering that precious personal relationship with your patients; this will assure your position and your destiny for all time, no matter what happens to medicine. Right now the young physician need not fear exploitation; the critical shortage of physicians precludes that. But medical practice is changing and changing rapidly, and so you must consider what can happen to physicians in the future if the increasing intervention by hospitals, by third parties, and by government continues and we are confronted with lay demands and pressures plus community control and ever-expanding bureaucracy. I know what did happen to physicians during the depression, and it was sad.

In the past, nearly all medical graduates were concerned only with their own careers; it is to your credit that you have such genuine concern with the community; all that makes this younger generation better, surely less self-centered.

Group Effort

My second admonition is to practice medicine as a member of a group, and thereby promote better use of your talents, your continuing education, and a better life. Group practice is the team approach and can integrate all efforts by general practitioners and specialists and allied health fields. Group practice lends itself to promotion of health as well as care of illness. Support for joint group practice will be forthcoming.

Also, fit your group effort into the coming reorganization of medical care and with its regionalization. Medical schools will be at the hub, with satellite hospitals and health centers. Thus facilities and personnel, professional and other, will all be organized to meet the specific needs of the patient in health and disease, whether he be ambulatory or ill in bed. No longer will physicians do their clinical work or research on their own in a social vacuum. Have the courage to initiate new experiments to improve the distribution of medical care; believe me you will need courage, for you will meet with opposition.

Participation

My final relevant item is an appeal for your active participation in your professional societies —yes, in these halls this last is stated with bated breath—join organized medicine. Become part of it and change its direction as you see fit. Does anyone doubt that there is great need for such a change, with two million people obtaining inadequate care, or some none at all, and with our present high maternal and infant mortality rates? The present aloof attitude of the academic community toward organized medicine, and of young physicians in particular, surrenders all control of medical policy by default to older, and often reac-

Presented at Albert Einstein College of Medicine Commencement, May 29, 1969. Dr. Angrist is Professor, Department of Pathology, Albert Einstein College of Medicine, New York.

tionary, physicians. Just to find fault and harp on it is neither helpful nor constructive. You young men and women can take control and change things. That will take effort and will try your mettle. If it is a fight you want, it awaits you, and personal experience tells me that all your tenacity and idealism will be tested.

Conclusion

I will close with a modified quote from Karl Jaspers, the Swiss philosopher: "Modern man pushes buttons, turns dials, shifts levers, and he has light, heat, telephone, and other comforts. He steps into the train, the automobile, the airplane. He does not need to know what is really going on in any of them. Science and technology take care of all that, of everything, even pills for our happiness. Everybody is a specialist in his own little realm and expects in turn to get what he requires from other specialists. All live as if the whole were being fully planned and properly directed. But that is the trouble, there is no central agency or specialist to direct things." You are fortunate, because as a physician, that central role can and should be yours; this is a proper role for the true physician.

These are a few of the challenges that confront you this day. My wish for you all is that you find real happiness, as you will, in meeting them.

▶ Dr. Angrist, 1300 Morris Park Avenue, The Bronx, New York 10461.

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Continuing Medical Education

What Do You Think?

The American Medical Association's Board of Trustees has suggested that participation in continuing education should become one of the requisites for continuing membership in state medical associations. Historically, it has been voluntary and some believe should remain so.

George James Hill, II, M.D., Denver, the first recipient of the Physician's Recognition Award, believes that "continuing medical education should be encouraged in every way possible and the Award is a meaningful way to encourage the voluntary participation of physicians in diverse learning experiences."

Robert Hope, M.D., Medical Director of St. Vincent's Hospital in Los Angeles, has regularly participated in continuing medical education since earning his medical degree in 1928. As for compulsory education, he dismisses the proposal with, "You can lead a horse to water but you can't make him drink."

Robert Evans, M.D., is so enthusiastic about the Physician's Recognition Award that he interested the entire York, Pennsylvania, hospital staff in applying for it. (All were eligible by virtue of courses they'd taken, scientific papers published and clinical meetings attended.)

F. Norman Vickers, M.D., Secretary of the Escambia County Medical Society from Pensacola, Florida, encouraged the entire society to adopt the Award program as a local project. "We saw this as an opportunity to show that Pensacola has a striving for medical excellence."

Maynard Shapiro, M.D., Chicago, immediate Past President of the American Academy of General Practice, plans to qualify for the Physician's Recognition Award every three years. "The knowledge explosion makes it mandatory that continuing education be an integral part of every physician's schedule," he explained.

Ninety-five medical institutions and organizations have been formally accredited for continuing medical education by the AMA Council of Medical Education. The current listing of courses includes 2,319 offered in 41 states, the District of Columbia and Puerto Rico. The courses are listed annually in the Journal of the American Medical Association. The listing was in the August 2, 1971 issue of JAMA.

Physician's Assistants
The Three Types

Jack W. Fleming, M.D., Roger Lamb, P.A., and John Appleyard, B.A.

Increased demands for medical care stimulated on-the-job specialized training and appropriate delegation of clinical functions to specially trained nurses such as those serving in the coronary care units of hospitals. Other programs provided aides and technicians who assume many essential tasks and sophisticated procedures. Physicians trained nurses, technicians and other personnel to perform multiple, important duties which assist them in their practices. Similar methods and techniques enlarged and enhanced the functions of Emergency Medical Technicians who assist in the emergency rooms of Florida hospitals and man ambulances for improved cardiac and trauma care.

This kind of training and education, however, is not to be confused with most current physician's assistant training programs which are designed to tap new resources of manpower.

The programs have assumed several forms since 1965 when Dr. Eugene A. Stead Jr. and his associates pioneered the work at Duke University School of Medicine. Dr. Stead, chairman of the Department of Medicine, inaugurated the specialized two-year program and later Dr. E. Harvey Estes, chairman of the Department of Community Health Services, headed it and Dr. D. Robert Howard became medical director. Other teaching centers have become involved with other goals and degrees of specialization or competence. A recent report listed programs in more than 20 universities and institutions. These developments have caused confusion concerning the term, "physician's assistant."

Recommendations from the Medical Board of the American Academy of Sciences and the Physician's Assistants Task Force of the American Association of Medical Colleges have described three types of assistants according to their role in helping the physician to evaluate and treat the patient and their training background. They are defined primarily for their ability to make independent judgmental decisions.

Type A or "physician's associate" is characterized by an ability to approach a patient, collect historical and physical data, pursue positive findings to an appropriate depth and then organize and report the data in a manner that enables the physician to visualize the medical problem and determine the next appropriate diagnostic and therapeutic steps. He can also perform diagnostic and therapeutic procedures specified by the physician and coordinate the roles of other, more technical assistants. Examples are the Child Health Associate being trained at the University of Colorado and the physician's assistant being trained at Duke University.

Type B or "specialized physician's assistant" is characterized by a more limited area of knowledge and skill but by a depth of training and skill exceeded only by the specialist physician working within the same field. He is most useful in a setting in which the patient has been screened and in which the need for his skills has been established by others. He is less capable of independent action but within his area his skill may exceed that of the generalist physician. An example is the Grady Hospital Coronary Care Assistant.

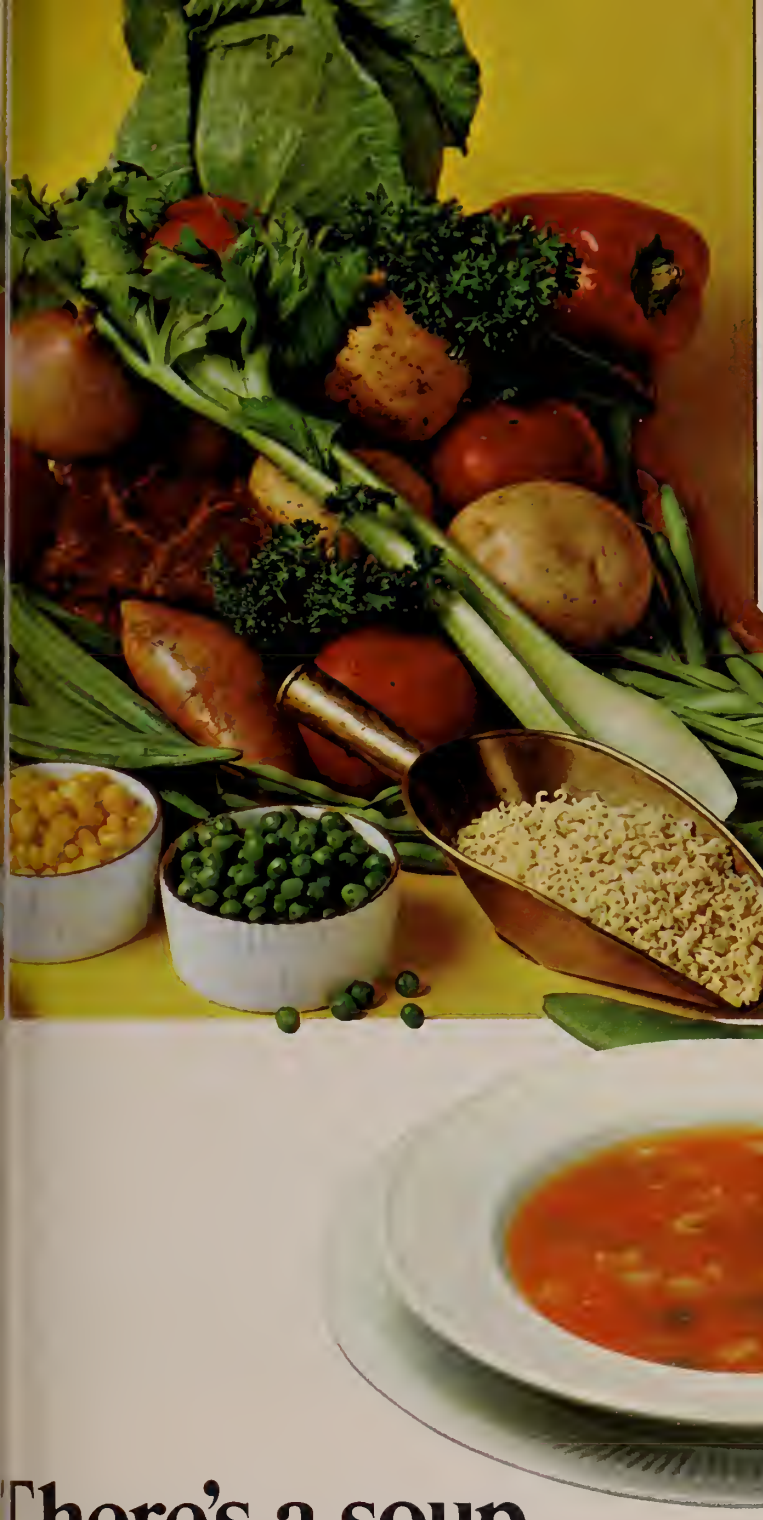
Type C or "general physician's assistant" is similar to Type A but has less formal training and, thus, less breadth and depth of knowledge. He is capable of performing an assortment of skills with precision but his theoretical base is less broad and deep. In a particular office this assistant might perform with an effectiveness equal to a type A assistant but he would be less able to shift to another setting and less able to integrate and synthesize clinical problems.

An example is the graduate of the MEDEX program at the University of Washington School of Medicine at Seattle where he is given three months training at the University hospital and one year preceptorship by selected preceptors in clinical practice.

▶ Dr. Fleming, Medical Center Clinic, 1750 North Palafox Street, Pensacola 32501.

This article is condensed from "The Physician's Assistant—A New Concept in 'Time Stretching,'" the slide-tape presentation prepared by Dr. Fleming, Mr. Lamb and Mr. Appleyard.

Dr. Fleming is chairman of the Florida Medical Association's Committee on Physician's Assistants and Medical Assistants. Mr. Lamb is Administrative Director of the Physician's Associate Program, Department of Medicine, University of Alabama in Birmingham, and Mr. Appleyard is associated with the Appleyard Agency in Pensacola.



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The Unwanted Child & Birth Control

Ten thousand battered children—a growing medical problem?

In his daily practice the physician witnesses the human suffering caused by uncontrolled fertility. Perhaps one of its most tragic effects is the unwanted child, who so often experiences parental rejection. The rejected child in a family may be neglected, nagged and severely punished. Sometimes he is criminally abused. Child abuse is common enough to have become a separate clinical entity: the "battered child" syndrome. Reliable statistics are difficult to obtain, but it has been estimated that in this country alone roughly 10,000 children are "battered" per year, and their number may be increasing.

A revealing picture of child abuse patterns is provided by one study of the American Humane Society. More than half of the 662 children involved (all reported in newspapers within a single year) were less than 4 years of age. One fourth of the battered youngsters died; most of these deaths were of children less than 2 years of age. Fathers were more often guilty of child abuse than mothers, but sometimes both parents participated. The study indicated that battered children are not limited to any particular socioeconomic stratum.

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Actions—Ovulen and Demulen act to prevent ovulation by inhibiting the output of gonadotropins from the pituitary gland. Ovulen and Demulen depress the output of both the follicle-stimulating hormone (FSH) and the luteinizing hormone (LH).

Special note—Oral contraceptives have been marketed in the United States since 1960. Reported pregnancy rates vary from product to product. The effectiveness of the sequential products appears to be somewhat lower than that of the combination products. Both types provide almost completely effective contraception.

An increased risk of thromboembolic disease associated with the use of hormonal contraceptives has now been shown in studies conducted in both Great Britain and the United States. Other risks, such as those of elevated blood pressure, liver disease and reduced tolerance to carbohydrates, have not been quantitated with precision.

Long-term administration of both natural and synthetic estrogens in subprimate animal species in multiples of the human dose increases the frequency of some animal carcinomas. These data cannot be transposed directly to man. The possible carcinogenicity due to the estrogens can be neither affirmed nor refuted at this time. Close clinical surveillance of all women taking oral contraceptives must be continued.

Indication—Ovulen and Demulen are indicated for oral contraception.

Contraindications—Patients with thrombophlebitis, thromboembolic disorders, cerebral apoplexy or a past history of these conditions, markedly impaired liver function, known or suspected carcinoma of the breast, known or suspected estrogen-dependent neoplasia and undiagnosed abnormal genital bleeding.

Warnings—The physician should be alert to the earliest manifestations of thrombotic disorders (thrombophlebitis, cerebrovascular disorders, pulmonary embolism and retinal thrombosis). Should any of these occur or be suspected the drug should be discontinued immediately.

Retrospective studies of morbidity and mortality conducted in Great Britain and studies of morbidity in the United States have shown a statistically significant association between thrombophlebitis, pulmonary embolism, and cerebral thrombosis and embolism and the use of oral contraceptives. There have been three principal studies in Britain[1-3] leading to this conclusion, and one[4] in this country. The estimate of the relative risk of thromboembolism in the study by Vessey and Doll[3] was about sevenfold, while Sartwell and associates[4] in the United States found a relative risk of 4.4, meaning that the users are several times as likely to undergo thromboembolic disease without evident cause as nonusers. The American study also indicated that the risk did not persist after discontinuation of administration, and that it was not enhanced by long-continued administration. The American study was not designed to evaluate a difference between products. However, the study suggested that there might be an increased risk of thromboembolic disease in users of sequential products. This risk cannot be quantitated, and further studies to confirm this finding are desirable.

Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions medication should be withdrawn.

Since the safety of Ovulen and Demulen in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule the possibility of pregnancy should be considered at the time of the first missed period.

A small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The long-range effect to the nursing infant cannot be determined at this time.

Precautions—The pretreatment and periodic physical examinations should include special reference to the breasts and pelvic organs, including a Papanicolaou smear since estrogens have been known to produce tumors, some of them malignant, in five species of subprimate animals. Endocrine and possibly liver function tests may be affected by treatment with Ovulen or Demulen. Therefore, if such tests are abnormal in a patient taking Ovulen or Demulen, it is recommended that they be repeated after the drug has been withdrawn for two months. Under the influence of progestogen-estrogen preparations preexisting uterine fibromyomas may increase in size. Because these agents may cause some degree of fluid retention, conditions which might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. In breakthrough bleeding, and in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In undiagnosed bleeding per vaginam adequate diagnostic measures are indicated. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. Any possible influence of prolonged Ovulen or Demulen therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving Ovulen or Demulen therapy. The age of the patient constitutes no absolute limiting factor, although treatment with Ovulen or Demulen may mask the onset of the climacteric. The pathologist should be advised of Ovulen or Demulen therapy when relevant specimens are submitted. Susceptible women may experience an increase in blood pressure following administration of contraceptive steroids.

Adverse reactions observed in patients receiving oral contraceptives—A statistically significant association has been demonstrated between use of oral contraceptives and the following serious adverse reactions: thrombophlebitis, pulmonary embolism and cerebral thrombosis.

Although available evidence is suggestive of an association, such a relationship has been neither confirmed nor refuted for the following serious adverse reactions: neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis.

The following adverse reactions are known to occur in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea during and after treatment, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post partum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals and mental depression.

Although the following adverse reactions have been reported in users of oral contraceptives, an association has been neither confirmed nor refuted: anovulation post treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption and itching.

The following laboratory results may be altered by the use of oral contraceptives: hepatic function: increased sulfobromophthalein retention and other tests; coagulation tests: increase in prothrombin, Factors VII, VIII, IX and X; thyroid function: increase in PBI and butanol extractable protein bound iodine, and decrease in T^3 uptake values; metyrapone test and pregnanediol determination.

References: 1. Royal College of General Practitioners: Oral Contraception and Thrombo-Embolic Disease, J. Coll. Gen. Pract. *13*:267-279 (May) 1967. **2.** Inman, W. H. W., and Vessey, M. P.: Investigation of Deaths from Pulmonary, Coronary, and Cerebral Thrombosis and Embolism in Women of Child-Bearing Age, Brit. Med. J. *2*:193-199 (April 27) 1968. **3.** Vessey, M. P., and Doll, R.: Investigation of Relation Between Use of Oral Contraceptives and Thromboembolic Disease. A Further Report, Brit. Med. J. *2*:651-657 (June 14) 1969. **4.** Sartwell, P. E.; Masi, A. T.; Arthes, F. G.; Greene, G. R., and Smith, H. E.: Thromboembolism and Oral Contraceptives: An Epidemiologic Case-Control Study, Amer. J. Epidem. *90*:365-380 (Nov.) 1969.

1A5

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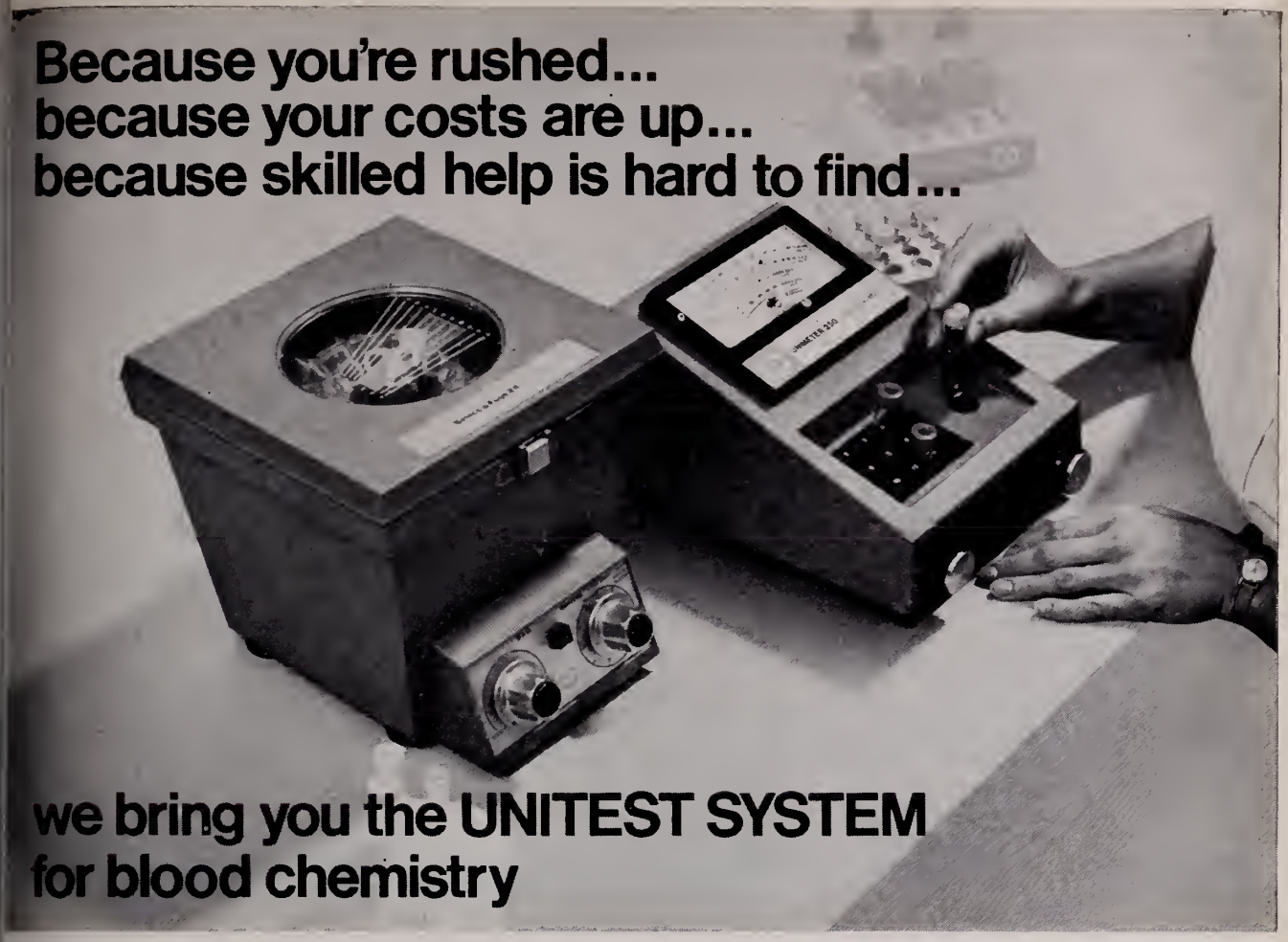
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Editorial

Dr. Jekyll or Mr. Hyde

Adopting an AMA definition that a Physician's Assistant is a skilled person qualified by academic and practical training to provide patient services under supervision and direction of a licensed physician who is responsible for the performances of that assistant, the FMA Committee on Physician's Assistants and Medical Assistants, in February of this year, mailed to you a questionnaire hoping to determine the need for such individuals in the state. Elsewhere in the Journal, this subject has been comprehensively reviewed by the committee chairman, Dr. Jack Fleming.

In view of the fact that many duties performed by physicians are routine, repetitive and can be done by nonphysicians after proper training; while growing is the number of medical functions already being performed by registered nurses, laboratory and x-ray technicians; since most needed in every hamlet, village and township is more medical care; and seeing that it will be some time before there will be enough physicians to even take care of the medical needs in metropolitan areas, it would appear that properly trained and supervised assistants could do much to aid the overworked physician see more patients and maintain ever higher standards of medical care. What with the public's demand for more and better care and governments' actions to meet that demand, it would further appear that some such individual will materialize whether we like it or not.

Among the specialties, Anesthesiology has long had an ally in nurse anesthetists. Internal Medicine has learned to rely on coronary care technicians and Pediatrics has its new associates. Orthopedic Surgery is training its brand of physician's assistants and Family Physicians in a number of states are seeking members of MEDEX to help meet the pressure and demands of today's health care. One unanswered question is whether any one specialty, after employing physicians' assistants, such as Ob-Gyn utilizing nurse midwives, has rearranged its practice to provide care for those not getting it now.

On the other hand, putting the physician's assistant in a rural area unsupervised, places the least trained individual in an area requiring the highest degree of clinical acumen and diagnostic ability for diseases to be recognized early. Could the medical assistant without integrity become a pseudo-physician continually fighting for more recognition, lower the standards of medical practice and prove an overpowering competitor to those who created him? The present gloomy malpractice situation will not improve due to the presence of a physician's assistant in one's office for the more a physician uses a para-medical assistant, the greater his legal risk of liability. The more hazardous the procedures he delegates, so will he increase his risk of liability. Recently in California, one physician using an assistant was found guilty in court and convicted for abetting an unlicensed person to practice medicine.

An alternate suggestion is to train a competent secretary, who follows one everywhere one goes, taking dictation, signing insurance forms, progress notes, delinquent charts and even checks. One lucky practitioner has long had such an assistant who now can legally sign his name, sometimes prefaced by the letters MRS.

C.M.C.

A Reason for Surveillance

Wilson T. Sowder, M.D.

The outbreak of Venezuelan equine encephalomyelitis in Texas and measures instituted to prevent the spread to Florida is cause for an alert among physicians to the possibility of the presence of mosquito borne viruses capable of infecting the central nervous system. Almost ten years have passed since the epidemic of St. Louis encephalitis in the Pinellas-Hillsborough area; however, the memory of it continues fresh and frightening.

If any of the arboviruses are ever reintroduced into Florida to an extent sufficient to cause illness among humans, their presence can be detected early provided there is adequate cooperation among all members of the health team. Provided also there is an awareness of their possible existence. Without effective control the first wave of the viral illness may be well underway before it is detected if the virus build-up is great among the vector and its host. There is no sound epidemiological reason for the second wave since we have the capabilities to destroy the vector mosquitoes.

Surveillance activities have been intensified for any evidence of arboviruses in the state. We request the assistance of all physicians so that the monitoring system will be so sensitive that the initial human case would be detected whenever and wherever it may occur. We hope that every patient presenting with symptoms of a central nervous system disorder will have the necessary laboratory studies to rule out arboviral causes. The Division of Health's laboratories in Jacksonville and in Tampa at the Epidemiology Research Center are prepared to perform promptly and report the results of diagnostic tests for these presumptive infections.

Often hemagglutination-inhibition procedures have substantial diagnostic value even within the first week of the illness. The laboratories will test these acute stage blood specimens for Venezuelan, St. Louis and Eastern encephalitis viruses upon receipt. Specimens from convalescing patients will be subjected to the same tests. If indicated both will be checked for evidence of other central nervous system viruses. Viral isolation studies will be performed on suitable necropsy specimens submitted from a suspect case of encephalitis.

In the field of public health, rightly the emphasis is upon prevention. It is our stock in trade. Many of us, as well as our clinician colleagues, have experienced epidemics of one kind or other in this country and in other countries. We appreciate the advantages provided us by drugs, but the physician always is moved by the suffering of his patients. It is more intense when those affected live about him. This is the personal, more intimate, reason for the stress upon prevention. This is the reason, too, that we use all means in attempts to reach all physicians, hopefully influencing the significant few.

▶ Dr. Sowder, P.O. Box 210, Jacksonville 32201.

The mind's eye can nowhere find anything more dazzling nor more dark than in man; it can fix itself upon nothing which is more awful, more complex, more mysterious, or more infinite. There is one spectacle grander than the sea—that is the sky; there is one spectacle grander than the sky—that is the interior of the soul.

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Dean's Page

Graduate Medical Education*—Carnegie Commission Report Academic Medical Centers and Community Hospitals

Emanuel Suter, M.D.

During the past half century a clear trend of independent program stages has developed ultimately producing the practicing physician, generalist, and specialist. Three distinct phases of medical education have emerged: premedical (usually within an undergraduate major), medical (leading to the M.D. degree), and postgraduate (aiming at specialty board certification). In the planning of each phase little attention has been given to the objectives and content of either the preceding or the subsequent phases.

The scene is drastically changed today. Medical school faculties are making efforts to view medical education as a continuum whereby the program leading to the M.D. degree is seen as the unifying and core portion of an educational experience which begins in undergraduate school and ends with a residency. Also pressures from the outside, be they community and organized medicine demanding more physicians or state and federal governments looking for greater economy in financing medical education, impose a more rational look at the total educational programs both in terms of student numbers as well as length of exposure to the various phases.

Economy of effort at the level of graduate medical education can be accomplished in different ways: Regionalization combined with centralized planning and supervision represent closely related possibilities. The objectives of such regionalization may be stated as follows: (1) Provide housestaff programs (internship and residency) which dovetail with the student's personalized M.D. degree program. (2) Utilize community and medical school centered resources jointly and interchangeably. (3) Provide exposure to both full time and voluntary faculty, and (4) Aim for the highest educational standards throughout the program.

Recent events at the national, state, community and medical school levels favor such a development. One such event is the widely publicized and generally accepted report on higher education by the Carnegie Commission+ which advocates the establishment of regional academic medical centers and area health education centers. Another impetus is provided by the regional medical program aimed at regionalizing educational and organizational efforts in the hope of closing a communication gap between educational institutions and community resources for medical care. A third important event is the enactment by the Florida Legislature of SB 280 which provides funds to assist in the planning for community hospital based graduate educational programs. Finally, the medical schools in the state of Florida clearly are developing increased interest and competency in providing leadership for regional programs.

The role of the three academic medical centers in developing regional programs of graduate education could be defined briefly as follows: (1) Provide a focal point for planning educational programs within a given region of the state by working closely with community based groups in defining potential resources of the community for participation in graduate educational programs. (2) Assist in the organization of regional medical faculties consisting of full-time and voluntary part-time physicians and/or medical scientists. (3) Provide expertise in scientific and medical advances and in educational methodology. (4) Provide opportunity within the academic center to community based faculty for refresher courses in the educational process. (5) Assist in the establishment of high quality curricula in community hospitals and provide continuing input into such programs, and (6) As needed develop a system of

Dr. Suter is Dean, University of Florida College of Medicine, Gainesville.

*The term "graduate medical education" refers to all post-M.D. intern and residency programs leading to specialty board qualification.

+Carnegie Commission on Higher Education. *Higher Education and the Nation's Health*, New York, McGraw-Hill Book Company, Oct. 1970.

rotating housestaff within the region for optimal educational experience.

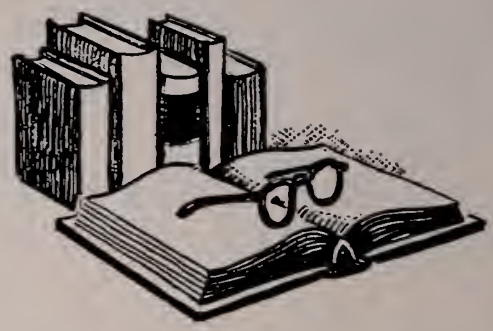
For the development of such a system of graduate medical education community hospitals, community-based hospital staff physicians, and academic medical center faculties must collaborate closely. The faculty of the College of Medicine at the University of Florida has been engaged in such cooperative programs and stands ready to assist in the further development of such a regional concept.

▶ Dr. Suter, University of Florida College of Medicine, Gainesville 32601.

Problems on Earth

We stand in awe of the amazing accomplishments of the Space Age. Again our Astronauts have landed on the moon; performed scientific experiments, and have returned with samples for further investigation. And the price—millions of precious dollars! But here on earth unsolved problems continue to multiply, awaiting that magical moment when our society will come to terms with critical issues which affect seriously our survival. Whether it be environmental pollution, inadequate housing, poverty and lack of educational opportunity, poor health care for the disadvantaged, drug control, medical research and on infinitum, the answer given for our failure to find solutions is lack of money. We have already taxed ourselves to the economic breaking point. There is very little more that can be squeezed out of our economy, so sorely inflated and yet producing progressively serious unemployment. But these problems exist, increase in severity, and cry out for action. We submit that it is time to look at our national priorities. As physicians concerned with our national physical and emotional health we urge that further celestial exploration temporarily be discontinued and that the huge sums of money allocated for this activity be expended to help resolve the problems on earth.

Reprinted from the Westchester Medical Bulletin, April 1971.



Books Received

Receipt of the following books is acknowledged. While time and space will not permit review of all books received, medical readers interested in reviewing particular books are invited to address requests to the Editor. Following acceptance of a written review for publication, a reviewer may then retain the book reviewed for his personal or favorite library.—Ed.

Guides to the Evaluation of Permanent Impairment by the Committee on Rating of Mental and Physical Impairment of the American Medical Association. Pp. 164. Price $5. Copyright, Chicago, American Medical Association, 1971.

Brands, Generics, Prices and Quality by PMA. Pp. 118. Price $1.00. Washington, D. C., Pharmaceutical Manufacturers Association, 1971.

Fifth Conference on War Surgery, Tokyo, Japan, March 29-April 2, 1971. Pp. 73. Copies available from CINCPAC, Attn: Surgeon, FPO San Francisco, California 96610.

Development and Legal Regulation of Coercive Behavior Modification Techniques With Offenders by Ralph K. Schwitzgebel, Ed.D., J.D., Harvard University. Pp. 90. Price 45 cents. Public Health Service Publication 2067, U.S. Government Printing Office, Washington, D.C. 20402.

Symposium on the Functional Physiopathology of the Fetus and Neonate, Clinical Correlations. Edited by Harold Abramson, M.D. Pp. 182. 61 illustrations. Price $15.00. St. Louis, The C. V. Mosby Company, 1971.

The Mental Health of the Child. Edited by Julius Segal, Ph.D. Pp. 588. Price $5.00. Washington, D. C., U.S. Government Printing Office, 1971.

Handbook of Clinical Dermatoglyphs by Musallam S. Elbualy and Joan D. Schindeler. Pp. 64. Price $6.95. Coral Gables, University of Miami Press, 1971.

Synopsis of Pediatrics by James G. Hughes, M.D. Pp. 1141. Illustrated. Price $14.50. St. Louis, The C. V. Mosby Company, 1971.

Speech Pathology by William H. Perkins, Ph.D. Illustrated. Pp. 449. Price $11.75. St. Louis, The C. V. Mosby Company, 1971.



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Contraindications: Known hypersensitivity. Should not be given concomitantly with or within at least 14 days following the discontinuance of a monoamine oxidase inhibitor. Then initiate dosage of amitriptyline HCl cautiously with gradual increase in dosage until optimum response is achieved. Not recommended during the acute recovery phase following myocardial infarction or for patients under 12 years of age.

Warnings: May block the antihypertensive action of guanethidine or similarly acting compounds. Should be used with caution in patients with a history of seizures or urinary retention, or with narrow-angle glaucoma or increased intraocular pressure. Patients with cardiovascular disorders should be watched closely; arrhythmias, sinus tachycardia, and prolongation of the conduction time have been reported, particularly with high doses; myocardial infarction and stroke have been reported with drugs of this class. Close supervision is required for hyperthyroid patients or those receiving thyroid medication. May impair mental and/or physical abilities required for performance of hazardous tasks, such as operating machinery or driving a motor vehicle. Safe use during pregnancy and lactation has not been established; in pregnant patients, nursing mothers, or women who may become pregnant, weigh possible benefits against possible hazards to mother and child.

Precautions: When used to treat the depressive component of schizophrenia, psychotic symptoms may be aggravated; in manic-depressive psychosis, depressed patients may experience a shift toward the manic phase, and paranoid delusions, with or without associated hostility, may be exaggerated; in any of these circumstances, it may be advisable to reduce the dose of amitriptyline HCl, or to use a major tranquilizing drug, such as perphenazine, concurrently.

When given with anticholinergic agents or sympathomimetic drugs, close supervision and careful adjustment of dosages are required. May enhance the response to alcohol and the effects of barbiturates and other CNS depressants. The possibility of suicide in depressed patients remains during treatment and until significant remission occurs; this type of patient should not have easy access to large quantities of the drug. Concurrent electroshock therapy may increase the hazards of therapy; such treatment should be limited to patients for whom it is essential. Discontinue the drug several days before elective surgery if possible.

Adverse Reactions: *Note:* Included in this listing are a few adverse reactions not reported with this specific drug. However, pharmacological similarities among the tricyclic antidepressant drugs require that each reaction be considered when amitriptyline is administered.

Cardiovascular: Hypotension, hypertension, tachycardia, palpitation, myocardial infarction, arrhythmias, heart block, stroke. *CNS and Neuromuscular:* Confusional states; disturbed concentration; disorientation; delusions; hallucinations; excitement; anxiety; restlessness; insomnia; nightmares; numbness, tingling, and paresthesias of the extremities; peripheral neuropathy; incoordination; ataxia; tremors; seizures; alteration in EEG patterns; extrapyramidal symptoms. *Anticholinergic:* Dry mouth, blurred vision, disturbance of accommodation, constipation, paralytic ileus, urinary retention, dilatation of urinary tract. *Allergic:* Skin rash, urticaria, photosensitization, edema of face and tongue. *Hematologic:* Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia. *Gastrointestinal:* Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, parotid swelling. *Endocrine:* Testicular swelling and gynecomastia in the male, breast enlargement and galactorrhea in the female, increased or decreased libido. *Other:* Dizziness, weakness, fatigue, headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, drowsiness, jaundice. *Withdrawal Symptoms:* Abrupt cessation of treatment after prolonged administration may produce nausea, headache, and malaise; these are not indicative of addiction.

How Supplied: Tablets containing 10 mg and 25 mg amitriptyline HCl, in single-unit packages of 100 and bottles of 100, 1000, and 5000; tablets containing 50 mg amitriptyline HCl, in single-unit packages of 100 and bottles of 100 and 1000; for intramuscular use, in 10-cc vials containing per cc: 10 mg amitriptyline HCl, 44 mg dextrose, and 1.5 mg methylparaben and 0.2 mg propylparaben as preservatives.

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Extensive clinical experience has shown that this ampicillin derivative offers unique advantages over the ampicillin you may be presently prescribing:

1/ A uniform adult and a uniform pediatric dosage in all mild-to-moderate infections due to susceptible organisms—respiratory, genitourinary, G.I., skin and soft tissue.

Adults: 225 mg. q.i.d.
Children: 10 mg./lb./day in 4 equally divided doses.
The recommended dosage for Versapen (hetacillin) does not depend on site of infection, but on severity. Therefore, in mild-to-moderate infections due to susceptible organisms, you can prescribe Versapen (hetacillin) for the genitourinary tract at the same dose recommended for the respiratory tract. Or any other infection site.

2/ A low dosage for mild-to-moderate genitourinary infections due to susceptible organisms.

3/ A low dosage for mild-to-moderate pediatric infections due to susceptible organisms.

4/ Parenteral forms remain stable up to six hours after reconstitution with sterile water ...longer than any ampicillin.

5/ Lower patient cost. Inherent with lower dosages for many indications is the benefit of lower cost to the patient. And, in these many instances, Versapen is significantly more economical to the patient than ampicillin brands.

Side Effects. As with any penicillin serious allergic reactions, including anaphylaxis, can occur. The type of side effects most frequently encountered are the same as with ampicillin, namely: diarrhea, loose stools, rash and nausea.

Please see next page for brief summary of prescribing information.

BRISTOL

Versapen® (hetacillin)
Versapen®-K (potassium hetacillin)

■ Versatile dosage forms...for all patients...of all ages. ■ A uniform a and a uniform pediatric dosage for all susceptible mild-to-moder infections...respiratory, genitourinary, G.I., skin and soft tissue. Reco mended dosage varies with severity, not site, of infection. ■ Parent forms remain stable up to six hours after reconstitution with sterile w ...longer than any ampicillin. ■ Economical therapy.

BRIEF SUMMARY OF PRESCRIBING INFORMATION
(A) 12/28/70
For complete information, consult Official Package Circular.

Actions: Hetacillin provides boctericidal levels of ampicillin but has no antibocterial activity itself. It hydrolyzes to ampicillin and has a half-life of 20 minutes at pH 7.1.

Indications: Hetacillin is indicated in the treatment of susceptible strains of the following organisms in the diseases listed. Bacteriology studies to determine the causative organisms and their sensitivity should be performed. Therapy may be instituted prior to obtaining results of sensitivity testing.

Group A beta-hemolytic Streptococcus: Tonsillitis, pharyngitis, otitis media, skin and soft tissue infections.

Diplococcus pneumoniae: Broncho- and lobar pneumonia, otitis media.

Nonpenicillinase-producing *Staphylococcus aureus:* skin and soft tissue infections, otitis media.

H. influenzae: Bronchitis and bronchopneumonia.

Escherichia coli: Cystitis, pyelonephritis, prostatitis/urethritis, skin and soft tissue infections.

Proteus mirabilis: Cystitis, pyelonephritis, skin and soft tissue infections.

Enterococcus (*Streptococcus faecalis*): Cystitis, pyelonephritis, prostatitis/urethritis.

Shigella species: Shigellosis.

Salmonella species: Salmonellosis (parenteral only).

Indicated surgical procedures should be performed.

Use parenteral drug only in severe infections or in patients unable to take oral medications.

Contraindications: A history of allergic reactions to penicillins or lidocaine.

Warning: Anaphylaxis may occur, particularly after pare administration and especially in patients with an allergic dia Check for a history of allergy to penicillins, cephalosporins a allergens. If an allergic or anaphylactic reaction occurs, tinue hetacillin and institute appropriate treatment.

Usage in Pregnancy: Safety for use in pregnancy is not lished.

Precautions: Mycotic or bacterial superinfections may occ sess renal, hepatic and hematopoietic function periodical ing long-term therapy. Because intravenous administrat potassium hetacillin in doses in excess of 5 mg./Kg. has beer to enhance the vasopressor effect of epinephrine in dogs, p tions should be taken with patients receiving epinephrin currently.

Adverse Reactions: Untoward reactions include: Glossitis, titis, black "hairy" tongue, nausea, vomiting and diarrhe rashes, urticaria, exfoliative dermatitis, erythema multiform anaphylaxis (usually with parenteral administration). A thrombocytopenia, thrombocytopenic purpura, eosinophili kopenia, and agranulocytosis have been noted, are usually r ible and are believed to be hypersensitivity phenomena.

Elevations in one or more liver function tests have been re without any evidence of hepatic toxicity.

Local reactions: Thrombophlebitis at the site of intraven jection has been reported.

Usual Dosage: Patients weighing 90 lbs. or more: 225 mg Patients weighing less than 90 lbs.: 2.5 mg./lb. q.i.d.

Group A beta-hemolytic streptococcal infections shou treated for at least 10 days. Administer oral preparations in ing state to insure maximum absorption.

Recommended dosages (expressed in terms of ampicillin activity) in susceptible mild-to-moderate infections*

Versapen® (hetacillin) **112.5 mg.**	Chewable Tablets	*Usual pediatric dosage:* 10 mg./lb./day in 4 equally divided doses. For a 45 lb. child: one tablet *q.i.d.*
	Oral Suspension (112.5 mg./5 ml.)	*Usual pediatric dosage:* 10 mg./lb./day in 4 equally divided doses. For a 45 lb. child: 1 tsp. *q.i.d.* Available in 40 ml., 80 ml., and new 100 ml. bottles.
	Pediatric Drops (112.5 mg./ml.)	*Usual dosage.* 10 mg./lb./day in 4 equally divided doses. For a 10 lb. child: ¼ dropper *q.i.d.* Available in 10 ml. bottles.
Versapen®-K (potassium hetacillin) **225 mg.**	Capsules	*Usual adult dosage:* one 225 mg. capsule *q.i.d.*
	I.V. I.M. with Lidocaine HCl (20 mg./vial)	*For patients weighing 90 lbs. or more:* 225 mg. *q.i.d.* *For patients weighing less than 90 lbs.:* 10 mg./lb./day in 4 equally divided doses.

*For severe infections—Adults: 450 mg. *q.i.d.* Children up to 90 lbs.: 20 mg./lb./day in 4 equally divided doses. Very serious infections may require very high doses and prolonged therapy. *Note:* Versapen® has been issued Patent No. 31

BRISTOL BRISTOL LABORATORIES/Division of Bristol-Myers Company/Syracuse, New York 13201



Reprinted from . . .

The Certified Medical Assistant (CMA)

As the old boundaries that narrowly restricted medical specialties recede to accommodate the team approach, the term *profession* is gradually acquiring new connotations.

Vitality of this change has profoundly influenced recent advancement in paramedical technologies. Among the most graphic are the new criteria for the training and development of Medical Assistants. Once a hit-and-miss affair, education of medical office employees has progressed from the concept of gradually accumulated proficiencies acquired on the job to a highly structured professional curriculum. This training is sequentially planned to include both theory and clinical application of modern medical office management skills. Two-year degree programs have been established in 13 community colleges throughout the United States, with medical accreditation available through the AMA Council on Medical Education. Parent to this innovation has been the American Association of Medical Assistants, with its 16,000 members in 46 states and Puerto Rico. Their outline for self-improvement grew from a service-oriented approach and the membership's strong dedication to ethical principles. Constantly increasing pressures for medical service highlighted the need for alert medical office personnel to whom the more sophisticated non-medical procedures could be delegated. Evaluation of their educational achievement is now possible. Physicians are being provided access to a perceptive and well prepared labor source, while Medical Assistants themselves advance to the closely-knit loyalties inherent in professional involvement. This new category of Medical Assistants can be expected to be watchful of the employer's interests and image, and also that of the entire medical profession.

Identification of a top-grade Medical Assistant was recently simplified by the adoption of national standards for individual performance. National certification has been made available to graduates of approved college programs, and to other applicants eligible to write an annual two-day examination presented in seven sections. The AAMA Certifying Board, established along the same lines as medical specialty boards, was authorized to award the *CMA* to candidates who successfully complete written requirements as follows:

1. Certified Medical Assistant—Administrative
2. Certified Medical Assistant—Clinical
3. Certified Medical Assistant—Administrative/Clinical (Dual)

Nine Medical Assistants have achieved national certification in examinations given at the University of Washington. It is anticipated that the number of CMA candidates will increase again in 1971, as it has each year since 1967.

A major attribute offered by the college-trained or Certified Medical Assistant is self-assurance. Controlled exposure to knowledge and techniques, plus monitored performances, provides opportunity for evaluation prior to employment. It can be assumed that an applicant for position in a medical office will be qualified if she holds a college diploma or has been certified by the Council on Medical Education. She will have comprehensive knowledge of medical office practice, ranging from the basic use of medical terminology and abbreviations to examining room procedures and careful handling of laboratory specimens. She will know secretarial and accounting skills, filing and insurance codes, and appreciates the legal implications of obtaining necessary patient authorizations.

Because she has been exposed to a variety of disciplines, her initial assets include a high degree of flexibility. She expects systems to vary according to types of practice and individual preferences. One of the important objectives of paramedical education is to instill in the student thoughtful recognition of her own limitations. Every college-trained or certified medical assistant knows the dangers and ramifications of practicing medicine without a license. At the same time, she is able to function well within assigned areas of clinical responsibility, such as assisting patients with interpreting fundamental nutritional needs; careful administration of office therapies; and performing routine laboratory and x-ray procedures with insight and competence.

The diversification acquired by Medical Assistants intent on self-improvement should not be underrated. Few employed assistants can demonstrate equal proficiencies in performing secretarial, clerical, nursing and laboratory skills unless they have obtained supplementary training. An office assistant who can function independently or fill in wherever needed without requiring additional instruction is an asset to any medical practice.

The tendency of some to equate acquisition of judgment with practical working experience has been a problem for graduates of professional programs. While the ability to exercise mature judgment may certainly be increased through experience, its development is not guaranteed by the passage of time alone. The indoctrinated novice is capable of making decisions regarding patient relations or in other sensitive office affairs because she has been given a solid base of ethical values for reference. In conjunction with her up-to-date professional information, such a beginner may be as well equipped as the assistant with long experience who lacks the motivation for continuing education.

Graduates of the two-year Medical Assistant Program at North Seattle Community College are performing at levels heretofore not expected of beginners. Comments regarding their discipline, patience, and poise, have been commendatory. Continuing education for Medical Assistants, whether obtained in a total college program or in special preparatory courses for certification, appears to be successful in its primary goal, to release the physician from the non-medical pressures of his practice.

This article by Dorothy Fairbanks and Nancy Fortin, both CMA members, was reprinted from the May 1971 issue of Northwest Medicine.

The school nurse practitioner program is a new educational and training program in pediatric health care for professional nurses which prepares school nurses to assume an expanded role in providing improved health care to school-aged children. School nurses will be prepared to offer comprehensive well-child care and to identify and assess the factors that may operate to produce learning disorders, psychoeducational problems, perceptive-cognitive difficulties, and behavior problems as well as those causing physical disease. The school will serve as a principal setting for comprehensive primary and continuing health care and services since it is the one place where children between the ages of 5 and 18 years are regularly and readily accessible. Effective utilization of nurses in a school setting could result in a major modification of the present health-care system.

Reprinted from "The School Nurse Practitioner Program" by Henry K. Silver, M.D., JAMA, May 24, 1971.

The Physician's Assistant—Who Needs Him!

Joseph Syty, M.D.

There is very little printed opposition to the physician's assistant concept, but many quarters appear to be forcing it upon the medical profession. Many of us feel that this is not a solution but only an additional hazard.

Several years ago the idea was that these assistants would be doing simple procedures and would work for $8,000 to $9,000 per year. Each year their capabilities have been increasing until they are now valued at $10,000 to $14,000 a year. This is only slightly less than some rural practitioners can earn, and more than the VA hospitals' starting salary for MDs. The PA would have to bring in twice his salary to cover the office overhead.

It amazes me to hear how much the PAs can do, and what a broad background of knowledge they have after training that varies from six months to two years. It appears that they can do nearly everything a general practitioner can do after eight years of instruction.

If their capabilities are so great, there should have been no difficulty in their overcoming a few obstacles to enter medical school and become MDs. Their total time of study doesn't equal the time it takes to train a good nurse—yet their responsibilities will be much greater.

Previous training as a medical corpsman is really not too significant. The corpsmen were exposed to a certain number of instruction hours, which were hardly very intense.

Advocates of the PA emphasize that he will be under the physician's supervision, but how much supervision can a busy practitioner give? With increasing numbers and organization of PAs, the next step for them is greater freedom to practice and less supervision. This could always happen through political influence over a period of time.

Originally, the PA was to help the GP, but now he will also aid the various specialties. When I send a patient to an internist for evaluation, I would be very unhappy to have a PA do a complete history, physical, and evaluation. I expect someone with a more extensive background than my own to do this. If the internist is going to recheck the patient thoroughly, then the preliminary exam was unnecessary.

A specialist fee for a PA work-up could certainly be described as deceptive services rendered. Some ivory tower specialists would pay scant attention to a private practitioner's work-up and yet accept one from a PA. This is both surprising and insulting, but I have seen some who have been very critical of the GP's capabilities and who now feel that the PA could practice good medicine.

Finally, those who accept the PA as a great help will suffer the consequences as socialization increases. Neither the government nor private insurance will pay the usual physician's fee if someone with two years' training can handle many medical problems. Why should they? Fewer people will aspire to become MDs, and our medical standards will be a shambles.

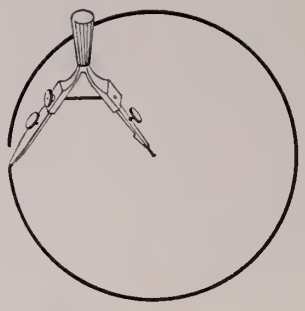
I hope that if malpractice insurance increases result from using PAs, then those who hired an "associate" for half the price will pay twice the insurance premium so that all of us will not be penalized.

There can be no cheap substitute for more medical schools and more physicians.

Reprinted from Physicians Management, July 1971.

The Florida Medical Librarians at their meeting in Bradenton, April 30, 1971 voted to initiate a consultant service for hospital librarians. Medical librarians in hospitals desiring help in their field can, upon request of their administrator, call for a qualified medical librarian in the Medical Library Organization to act as a consultant to aid them in the planning or managing of their library. Funds will be provided from the treasury of the organization with no charge to either the librarian or the hospital. Request for this service should be sent to Judy Gomery, Boca Raton Community Hospital, 800 Meadow Road, Boca Raton, Florida 33432.

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It's not just by accident that the Guild Optician is an expert. His qualifications are based on knowledge and experience, his will to serve the doctor, his ability to handle not only the routine problems of after-service for your patients, but also the unusual.

When you write a prescription, above all you expect to have that Rx properly filled so the patient obtains the full benefit of your professional services. You also expect to have your patient receive after-service for the life of his glasses. That's why it's wise to call on an expert — your Guild Optician. *Guild of Prescription Opticians of Florida.*

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LONG TERM THERAPY OF DRUG DEPENDENCY CONDITIONS

Willingway Hospital is a new facility, the first complete hospital to be constructed under the Georgia Hospital Rules and Regulations, revision of November 24, 1969, authorizing residential type units.

Located at the city limits in east Statesboro on an eleven acre tract of woodland in a quiet, secluded area containing a lake, the single story, multi-level hospital consists of a detoxification section and a residential care section. The detoxification unit is equipped and staffed for the withdrawal treatment of any type of intoxication including alcohol, narcotics, sedatives, tranquilizers and other drugs or combinations.

The residential care unit is composed of 26 private rooms with private baths convenient to a comfortable lounge and arranged to achieve an intimate home-like atmosphere. All living units are individually decorated and furnished. No two are alike. Wall to wall carpet throughout.

There is a large day room, inside and outside patios, a dining room where home cooked meals are served, a library and conference rooms. The building is all electric, completely air conditioned with individual controls, and is protected by a modern sprinkler system in all areas.

Male and female patients are admitted to the detoxification unit for withdrawal. When this phase is completed, they are transferred to the residential care unit for continuation of rehabilitative therapy.

The Willingway treatment program operated successfully at another location in Statesboro for four years before moving to the new facility.

Requirements for admission. To be admitted all new patients must agree to the following:

1. Stay 28 days.
2. No telephone calls.
3. No visitors.
4. No automobiles.
5. Pay for 28-day program at time of admission.

Incoming and outgoing mail is not restricted. Mail is not read or censored. No one is admitted for detoxification only.

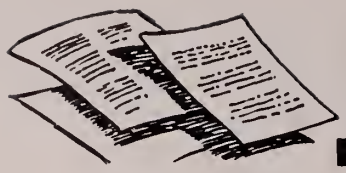
For rates and information write to:

WILLINGWAY
P. O. Box 508
Statesboro, Ga. 30458

John Mooney, Jr., M.D.
Medical Director

Mrs. Dorothy R. Mooney
Administrator

Member Georgia Hospital Association



Letters

The following letter was written to Dr. James T. Cook, Immediate Past President of FMA and contains information of interest to all of us.—Ed.

Dear Dr. Cook:

Thank you for your letter of April 7, 1971, commenting on our proposed policy on combination drugs.

For a variety of reasons, there has been widespread misunderstanding about the FDA policy on combination drugs. To correct this and to be helpful, we want to explain our combination drug policy to you.

As we review the several hundred physician letters that have come to us objecting to the proposed policy, a number of themes emerge.

The first is that drug combinations should not be banned by an across-the-board policy statement. We agree.

Second is the assertion that many drug combinations are safe and effective for their intended uses, while others are not. We agree with this, too.

Third, the point is made that the practicing physician has not been consulted adequately; that the practicing physician is the one who knows best about drug effectiveness from his daily observations with his patients; and that the policy proposed is a product of "ivory tower" thinking of bureaucrats or academicians out of touch with the realities of patient care. Actually, we did consult with many knowledgeable practicing physicians before proposing this policy. We now have heard from a great many other physicians, and we are considering all views. Most would agree that drug effectiveness has to be evaluated on the basis of controlled studies, whether they be carried out in the physician's practice or in a medical center. What we ask and what the law requires is that claims of effectiveness be supported by evidence derived from adequate clinical investigations on the basis of which it can be concluded responsibly that any drug will have the effectiveness it is represented to have and which it purports to possess.

The next major objection is that the policy we propose will greatly increase patient cost and will confound both prescribers and pharmacists in prescribing and in compounding drug mixtures. The last is said to introduce problems of quality control, drug compatibility, and patient acceptance of needed medicines. None of these is a reality. If a drug combination is medically justified, there is no reason why it should not continue to be available from the pharmaceutical manufacturers. If it cannot meet reasonable standards as to safety and effectiveness, there is no patient convenience and economy in taking an irrational or even harmful drug mixture.

As we have indicated, we are not against fixed dose combinations. There is now and always will be a place for good combination drugs.

Our policy on drug combinations is remarkably simple to state and to defend. The fundamentals are: that more than one drug should not be used when one is all that is needed; that drugs in fixed combination should satisfy the needs of a population of patients who require concomitant treatment by the two or more drugs in the combination; that there be no incompatibility between the components; that the dose of such components be appropriate for the intended patients. In addition, a combination is appropriate when the added ingredient enhances the effectiveness of the main active ingredient and when an added ingredient minimizes the potential for abuse of the main active ingredient.

There can be no serious medical dispute about this. This Council on Drugs of the American Medical Association, the Council on Drugs of the American Pediatrics Association, the American Pharmaceutical Association, the *United States Pharmacopeia,* leading textbooks, and the leaders of the medical profession have consistently expressed the need for a sound medical rationale for using drugs in fixed combination.

We trust that you will agree that the above requirements are reasonable and, if followed, will help bring about better therapeutics and the availability of better drugs.

We recognize the need for us to put before the profession what is actually being proposed so that the physician can speak to it rather than to something that has not been proposed.

We will welcome your response after considering the points we have made.

With kindest regards,

Charles C. Edwards, M.D.
Commissioner of Food and Drugs
Rockville, Maryland 20852

Dear Dr. Collins:

Perhaps you will be interested in this information.

My installation, as a National Director of the Woman's Auxiliary to the American Medical Association, was very thrilling to me and I was so happy to have Dr. Hurt, Dr. Dean and Harold Parham present. It made me feel so good to have their support.

It has been a long time since Florida has had anyone in a national office and I hope to do a fine job. My assignment as chairman of the new Health Education Committee is a big one because it covers so much.

Next month I will be in Chicago for a few days, working with the staff on some new material we plan to develop. Much of my work will be research and writing.

I enjoy the Journal very much and wish you every success. With all good wishes for a nice summer, I am

Most sincerely,
Mrs. Linus W. Hewit
Tampa



Dear Editor:

Summertime, mosquitoes and the Venezuelan Equine Encephalitis in Texas alert us to the possibility of another arbovirus encephalitis outbreak in Florida. Though it has been a decade since the 1962 St. Louis Encephalitis epidemic in St. Petersburg, memory of it continues fresh and frightening. We are hopeful that if ever again the St. Louis virus is re-introduced into our state, or any other arbovirus, including the Venezuelan, its presence will be detected early and any potential outbreak promptly thwarted. To this end, our surveillance activities are being intensified. Your help is requested.

Needed is a system for monitoring human disease sufficiently sensitive to detect the first case of arboviral infection whenever and wherever it occurs. We hope, therefore, that every case of viral Central Nervous System infection coming to clinical attention would be tested for arboviruses. The Division of Health Laboratories both in Jacksonville and at the Epidemiology Research Center in Tampa are prepared to promptly perform and report diagnostic tests for presumptive arbovirus infections. Since hemagglutination-inhibition (HI) tests often have substantial diagnostic value even within the first week of illness, acute stage blood specimens will be tested for Venezuelan, St. Louis and Eastern Encephalitis viruses upon receipt and results promptly reported. As convalescent specimens are received, they will be subjected to the same test and, if indicated, both specimens checked for evidence of other CNS viruses. Additionally, viral isolation studies will be performed on suitable necropsy specimens submitted from a suspect case of viral encephalitis. We are anxious for all Florida physicians to be aware of these laboratory services and to use them.

Any way that you might emphasize the urgent importance of early detection of arboviral presence in Florida to permit prompt institution of control measures will be deeply appreciated.

Wilson T. Sowder, M.D., Director
Division of Health
Jacksonville

To forget the good
That others do us
Is not good.
To forget that very day
The evil done to us
Is good indeed.

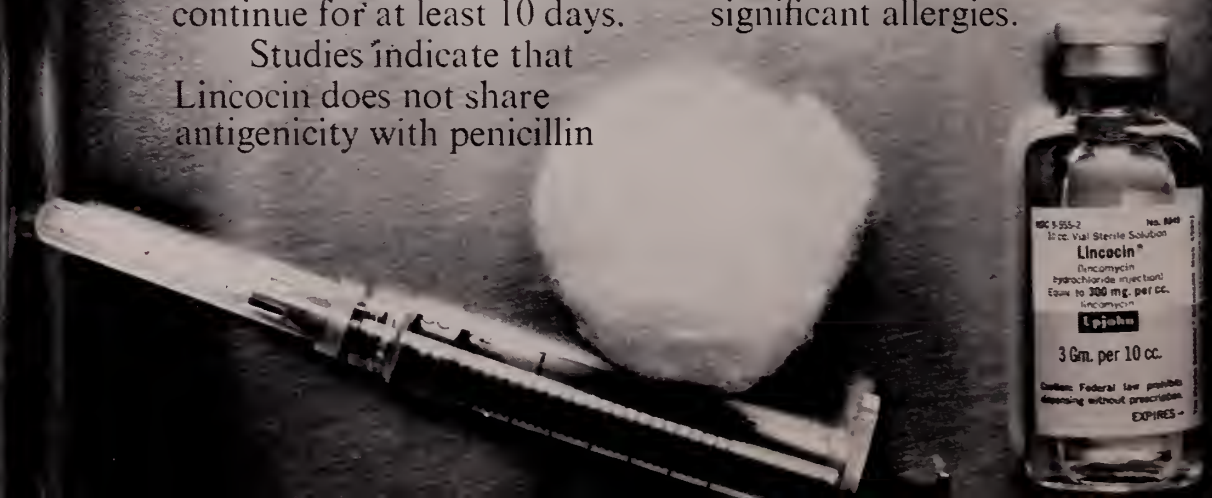
Kural XI. 8

Hypersensitivity to penicillin is a good reason to consider Lincocin®

(lincomycin hydrochloride)

Lincocin (lincomycin hydrochloride, Upjohn) has produced a high percentage of satisfactory responses in patients with mild, moderate and severe infections due to susceptible streptococci, pneumococci and staphylococci (including many penicillinase-producing strains). With β-hemolytic streptococcal infections, treatment should continue for at least 10 days.

Studies indicate that Lincocin does not share antigenicity with penicillin compounds. However, hypersensitivity reactions such as angioneurotic edema, serum sickness and anaphylaxis have been reported, some of these in patients known to be sensitive to penicillin. As with any antibiotic, Lincocin (lincomycin hydrochloride, Upjohn) should be used cautiously in patients with histories of asthma or other significant allergies.



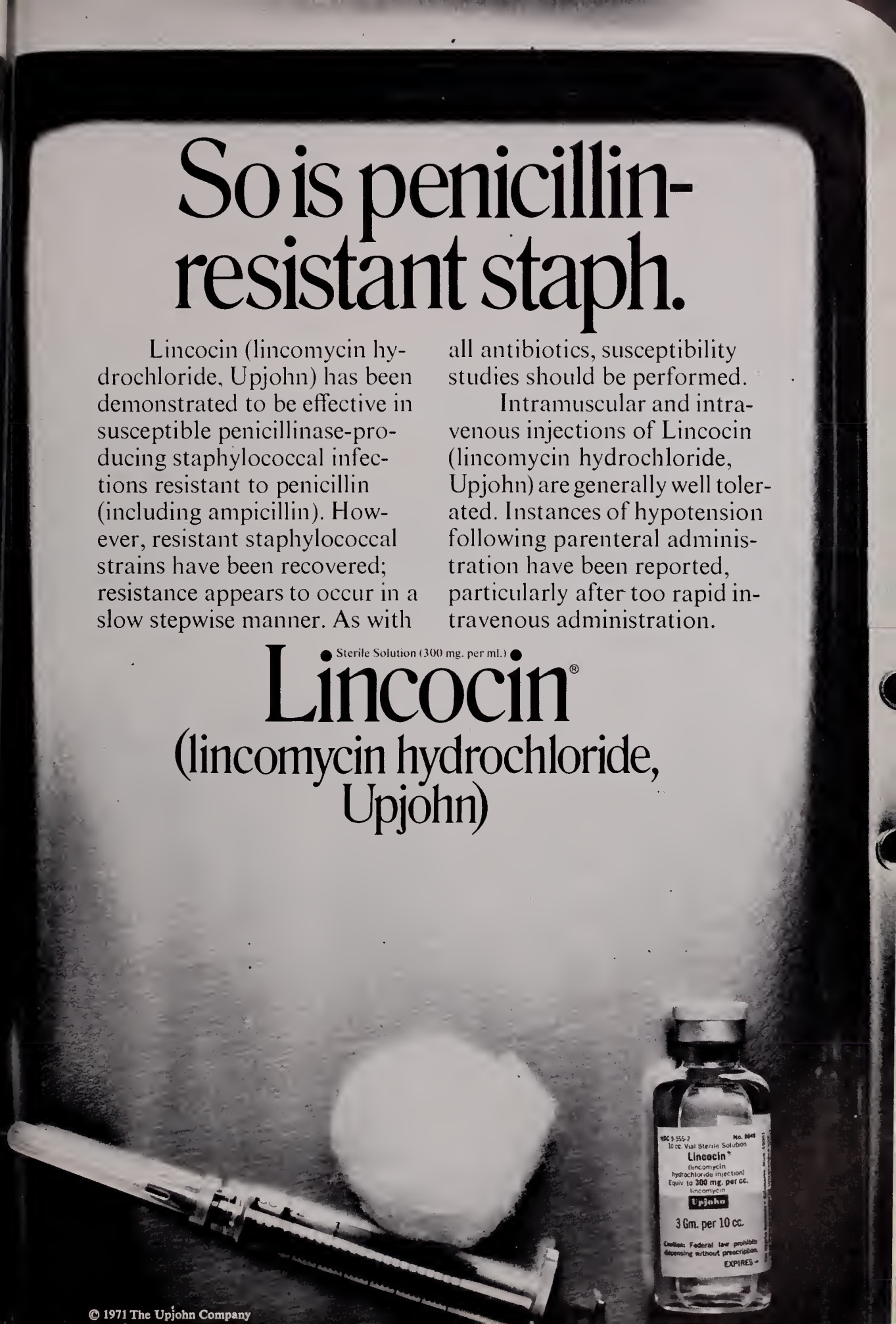
So is penicillin-resistant staph.

Lincocin (lincomycin hydrochloride, Upjohn) has been demonstrated to be effective in susceptible penicillinase-producing staphylococcal infections resistant to penicillin (including ampicillin). However, resistant staphylococcal strains have been recovered; resistance appears to occur in a slow stepwise manner. As with all antibiotics, susceptibility studies should be performed.

Intramuscular and intravenous injections of Lincocin (lincomycin hydrochloride, Upjohn) are generally well tolerated. Instances of hypotension following parenteral administration have been reported, particularly after too rapid intravenous administration.

Sterile Solution (300 mg. per ml.)

Lincocin®
(lincomycin hydrochloride, Upjohn)



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Sterile Solution (300 mg. per ml.)

Lincocin®

(lincomycin hydrochloride, Upjohn) for respiratory tract, skin, soft-tissue, and bone infections due to susceptible streptococci, pneumococci, and staphylococci

Each preparation contains:	Lincomycin hydrochloride monohydrate equivalent to lincomycin base
250 mg. Pediatric Capsule	250 mg.
500 mg. Capsule	500 mg.
*Sterile Solution per 1 ml.	300 mg.
Syrup per 5 ml.	250 mg.

*Contains also: Benzyl Alcohol 9 mg.; and, Water for Injection—q.s.

An antibiotic chemically distinct from others available, indicated in infections due to susceptible strains of staphylococci, pneumococci, and streptococci. *In vitro* susceptibility studies should be performed.

CONTRAINDICATIONS: History of prior hypersensitivity to Lincocin (lincomycin hydrochloride). Not indicated in the treatment of viral or minor bacterial infections.

WARNINGS: Cases of severe and persistent diarrhea have been reported and at times drug discontinuance has been necessary. This diarrhea has been occasionally associated with blood and mucus and at times has resulted in acute colitis. This reaction usually has been associated with oral therapy, but occasionally has been reported following parenteral therapy. Although cross sensitivity to other antibiotics has not been demonstrated, make careful inquiry concerning previous allergies or sensitivities to drugs. Safety for use in pregnancy has not been established and Lincocin is not indicated in the newborn. Reduce dose 25 to 30% in patients with severe impairment of renal function.

PRECAUTIONS: Like any drug, Lincocin should be used with caution in patients having a history of asthma or significant allergies. Overgrowth of nonsusceptible organisms, particularly yeasts, may occur and require appropriate measures. Patients with pre-existing monilial infections requiring Lincocin therapy should be given concomitant antimonilial treatment. During prolonged Lincocin therapy, periodic liver function studies and blood counts should be performed. Not recommended (inadequate data) in patients with pre-existing liver disease unless special clinical circumstances indicate. Continue treatment of β-hemolytic streptococci infection for ten days to diminish likelihood of rheumatic fever or glomerulonephritis.

ADVERSE REACTIONS: *Gastrointestinal*—Glossitis, stomatitis, nausea, vomiting. Persistent diarrhea, enterocolitis, and pruritus ani. *Hemopoietic*—Neutropenia, leukopenia, agranulocytosis, and thrombocytopenic purpura have been reported. *Hypersensitivity reactions*—Hypersensitivity reactions such as angioneurotic edema, serum sickness, and anaphylaxis have been reported, sometimes in patients sensitive to penicillin. If allergic reaction occurs, discontinue drug. Have epinephrine, corticosteroids, and antihistamines available for emergency treatment. *Skin and mucous membranes*—Skin rashes, urticaria, vaginitis, and rare instances of exfoliative and vesiculobullous dermatitis have been reported. *Liver*—Although no direct relationship to liver dysfunction is established, jaundice and abnormal liver function tests (particularly serum transaminase) have been observed in a few instances.



Cardiovascular—Instances of hypotension following parenteral administration have been reported, particularly after too rapid I.V. administration. Rare instances of cardiopulmonary arrest have been reported after too rapid I.V. administration. If 4.0 grams or more administered I.V., dilute in 500 ml. of fluid and administer no faster than 100 ml. per hour. *Local reactions*—Excellent local tolerance demonstrated to intramuscularly administered Lincocin. Reports of pain following injection have been infrequent. Intravenous administration of Lincocin in 250 to 500 ml. of 5% glucose in distilled water or normal saline has produced no local irritation or phlebitis.

HOW SUPPLIED: *250 mg. and 500 mg.* Capsules—bottles of 24 and 100.

Sterile Solution, 300 mg. per ml.—2 and 10 ml. vials and 2 ml. syringe.

Syrup, 250 mg. per 5 ml.—60 ml. and pint bottles.

For additional product information, consult the package insert or see your Upjohn representative.

JA71-1203 MED B-5-SR (KZL-6)

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Kalamazoo
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All Mudranes are bronchodilator-mucolytic in action, and are indicated for symptomatic relief of bronchial asthma, emphysema, bronchiectasis and chronic bronchitis. **MUDRANE tablets** contain 195 mg. potassium iodide; 130 mg. aminophylline; 21 mg. phenobarbital (Warning: may be habit-forming); 16 mg. ephedrine HCl. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions** are those for aminophylline-phenobarbital-ephedrine combinations. **Iodide side-effects:** May cause nausea. Very long use may cause goiter. Discontinue if symptoms of iodism develop. **Iodide contraindications:** Tuberculosis; pregnancy (to protect the fetus against possible depression of thyroid activity). **MUDRANE-2 tablets** contain 195 mg. potassium iodide; 130 mg. aminophylline. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions** are those for aminophylline. **Iodide side-effects and contraindications are listed above. MUDRANE GG tablets** contain 100 mg. glyceryl guaiacolate; 130 mg. aminophylline; 21 mg. phenobarbital (Warning: may be habit-forming); 16 mg. ephedrine HCl. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions** are those for aminophylline-phenobarbital-ephedrine combinations. **MUDRANE GG-2 tablets** contain 100 mg. glyceryl guaiacolate; 130 mg. aminophylline. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions:** Those for aminophylline. **MUDRANE GG Elixir.** Each teaspoonful (5 cc) contains 26 mg. glyceryl guaiacolate; 20 mg. theophylline; 5.4 mg. phenobarbital (Warning: may be habit-forming); 4 mg. ephedrine HCl. **Dosage:** Children, 1 cc for each 10 lbs. of body weight; one teaspoonful (5 cc) for a 50 lb. child. Dose may be repeated 3 or 4 times a day. Adult, one tablespoonful, 4 times daily. All doses should be followed with ½ to full glass of water. **Precautions:** See those listed above for Mudrane GG tablets.

MUDRANE—original formula
First choice

MUDRANE-2
When ephedrine is too exciting or is contraindicated

MUDRANE GG
During pregnancy or when K.I. is contraindicated or not tolerated

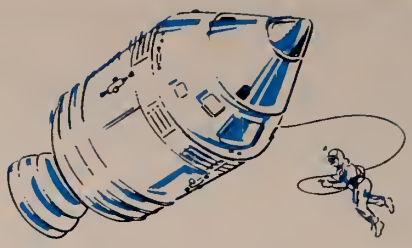
MUDRANE GG-2
A counterpart for Mudrane-2

MUDRANE GG ELIXIR
For pediatric use or where liquids are preferred

Clinical specimens available to physicians.

WILLIAM P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA 23217

Manufacturers of Ethical Pharmaceuticals



Man in space, now fait accompli, re-emphasizes the importance of Uro-Phosphate therapy. Research into the effect of space travel on the astronaut reveals that weightlessness causes loss of bone calcium. As the bones are required to bear less and less of the weight of the body they lose calcium, increasing the calcium content of the urine. When physical activity is reduced, the acidity of the urine should be adjusted to keep increased calcium in solution a prophylaxis to prevent kidney or bladder calculi.

Uro-Phosphate®

NOW A SUGAR-COATED TABLET

Each tablet contains: METHENAMINE, *300 mg.;* SODIUM ACID PHOSPHATE, *500 mg.*

Uro-Phosphate gives comfort and protection when inactivity causes discomfort in the urinary function. It keeps calcium in solution, preventing calculi; it maintains clear, acid, sterile urine; it encourages complete voiding and lessens frequency when residual urine is present.

Uro-Phosphate contains sodium acid phosphate, a natural urinary acidifier. This component is fortified with methenamine which is inert until it reaches the acid urinary bladder. In this environment it releases a mild antiseptic keeping the urine sterile.

Uro-Phosphate is safe for continuous use. There are no contra-indications other than acidosis. It can be given in sufficient amount to keep the urine clear, acid and sterile. A heavy sugar coating protects its potency.

Dosage:

For protection of the inactive patient 1 or 2 tablets every 4 to 6 hours is usually sufficient to keep the urine clear, acid and sterile.

2 tablets on retiring will keep residual urine acid and sterile, contributing to comfort and rest.

A clinical supply will be sent to physicians and hospitals on request.

WILLIAM P. POYTHRESS & COMPANY, INC., RICHMOND, VIRGINIA 23217

Manufacturers of Ethical Pharmaceuticals

ORGANIZATION

Ad Hoc Committee on Drug Abuse

The FMA Ad Hoc Committee on Drug Abuse favors establishment of regional urine screening facilities in Florida as a means of detecting addicts.

Such a detection program would employ modern facilities and methods such as those being used to screen members of the armed forces returning from duty in southeast Asia.

The recommendation came out of the Committee's meeting in Tallahassee on July 21. The Committee decided to ask appropriate state agencies to undertake feasibility studies.

In other action, the Committee called for early implementation of guidelines for school personnel for handling drug problems. The State Department of Education recently distributed these guidelines to local school superintendents.

FMA Committee on Rural Health

Florida physicians are being asked to be on the alert for any potential environmental or health problems connected with proposed residential developments.

The request for assistance was made by Mr. Lowell W. Steve, Director of the Division of Florida Land Sales. Mr. Steve's agency has jurisdiction over developments containing 50 or more parcels of land. The Division's activities include the issuance of permits.

Specifically, FMA members are requested to keep an eye on developments in their areas and report to Mr. Steve any suspected hazards to health or environment. Investigators will be assigned to look into these reports.

Mr. Steve reported on his agency's activities at a meeting of the Florida Committee on Rural Health, of which the FMA is a participating member.

Physicians may address any comments concerning residential developments to: Mr. Lowell W. Steve, Director, Division of Florida Land Sales, P.O. Box 4448, Tampa, Fla. 33607.

ORION OTIS FEASTER, M.D.

Past President, Florida Medical Association

1893-1971

Orion Otis Feaster, M.D., who served as President of the Florida Medical Association in 1936, died on June 29, at the age of 78.

Born at the Alachua County community of Micanopy, Dr. Feaster moved to St. Petersburg in 1920. He had received his M.D. degree four years previous at Jefferson Medical College of Philadelphia.

A pioneer in the field of radiology in the St. Petersburg area, Dr. Feaster was a Fellow of the American College of Radiology, a former Vice President of the Radiological Society of North America, and was a member of other radiological groups. In addition to the FMA presidency, he also headed the Pinellas County Medical Society.

Dr. Feaster and his wife, Annette Feaster, M.D., retired from practice in 1948 and moved to Mississippi and Washington, where they resided until returning to Florida about two years ago.

Survivors include the widow; two sons, Orion O. Feaster Jr., of Lakeland and John Tipkin Feaster of Gainesville; and a brother, B. L. Feaster of Mississippi.

State of Florida Board of Medical Examiners

Suppose you are a psychiatrist and another physician comes to you for treatment and you soon reach the conclusion in your own mind that your patient should not be treating others?

Florida's "Sick Doctor" law authorizes the Board of Medical Examiners to take steps in these cases toward protecting the public and rehabilitating the physician, but the psychiatrist with a "sick doctor" on his hands finds himself in a dilemma. One psychiatrist recently sought the guidance of the Board of Medical Examiners. Since many psychiatrists and other physicians may sooner or later find themselves faced with the same problem, the Journal herewith publishes the reply of George S. Palmer, M.D., Executive Director of the Board.

Dear Doctor:

I have your memorandum regarding physicians as patients in which you express the dilemma in which a psychiatrist often finds himself with regard to a physician-patient and his responsibility both to the physician as a patient and to the public.

If there is any doubt at all in the psychiatrist's mind concerning his physician-patient's competence to practice medicine, then this should be immediately communicated to the Board. It is our prime responsibility to protect the public first and to rehabilitate and restore our colleague to useful practice again. Our role is not to protect the physician but to protect the public; of course we desire to salvage the physician also.

Under the "Sick Doctor" amendment to our Medical Practice Act this Board is granted the authority to order psychiatric examination or physical examination and depending upon the findings the Board may insist that the physician-patient be hospitalized and/or follow out the directions of the attending physician who has examined him. The Board has the authority to suspend the physician's license pending demonstration to the Board's satisfaction that the physician is able to resume practice again in a competent manner. In this instance, any communication between the physician and the physician-patient is not privileged as far as this Board is concerned and the Board can be informed of any and all findings by the treating physician without fear of being charged with revealing privileged communication. This Board has helped many a colleague through this mechanism during the past two years. This has enabled us to help a physician in trouble in time to really have a chance of salvaging him instead of waiting until some tragedy occurs or until the rock bottom has been reached. We would far rather restore a physician to a useful professional life than take his license.

I agree with the statement that the attending physician has a duty where a colleague's competence is in question to bring this to the attention of the president of the staff and also to this Board if the situation cannot be handled locally.

Thank you very much for your interest in this. You can be sure of the cooperation of this Board in the protection of the public and in the restoration of colleagues to useful professional lives again.

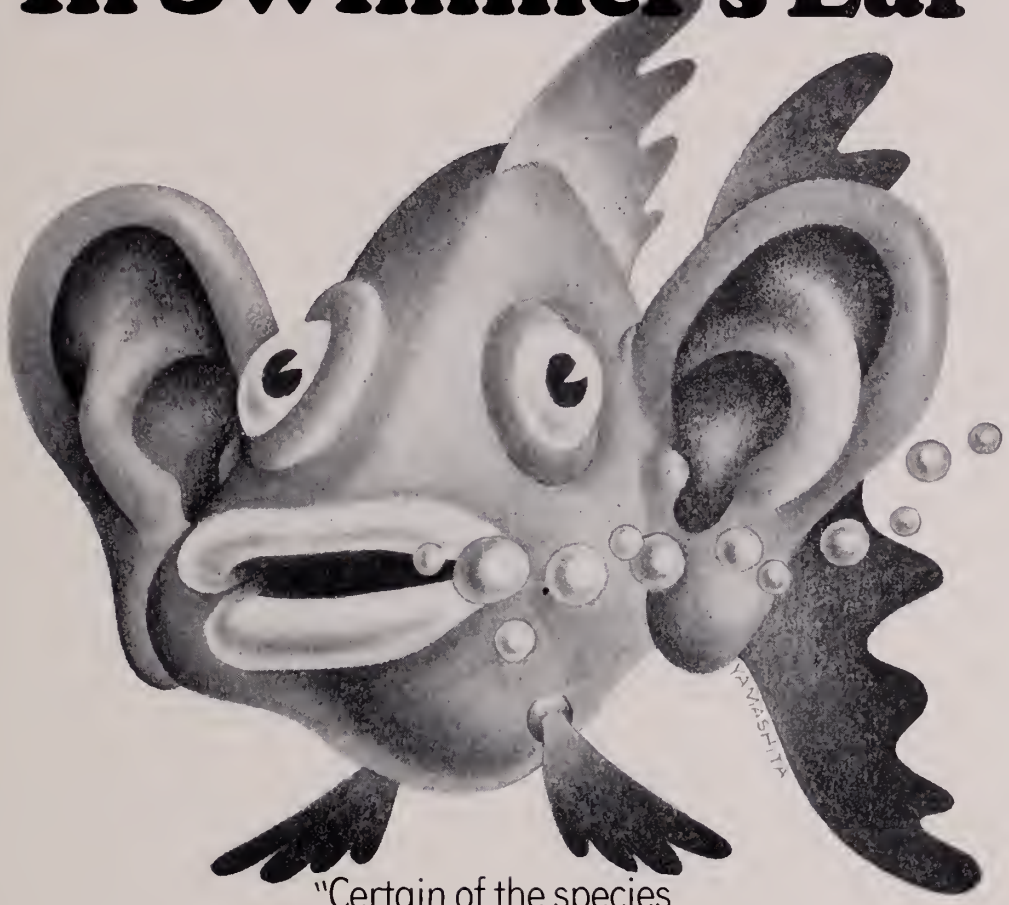
George S. Palmer, M.D.
Executive Director
Board of Medical Examiners
Tallahassee

LONG HOT SUMMER

Bitter invective
Buckshot
Billy clubs
Bloody pavements
Trappings of revolt
Framed in alliteration,
Seem less revolting.
Blind fury rages untamed
Cities burn
Brutality runs amok
Black ashes adorn gutted ruins
Poisonous platitudes pierce darkness
Havenots lash out at others
Wreak havoc upon themselves.
Once tame beast, gone mad, devours its progenitors
Grows fat on their flesh
Then, driven by incessant heat
Stalks new prey
Status quo
Refuge of complacency is doomed.

—A. L. Lieber, M.D.
Miami Beach

In Swimmer's Ear



"Certain of the species
are apt to encounter aural
difficulties after engaging in various
natatory pursuits."

Furacin® Otic

(nitrofurazone) antibacterial/anesthetic/antifungal

Formula: Contoins (w/w) 0.2% FURACIN, brond of nitrofurozone, 0.375% Micofur®, brond of nifuroxime, and 2% diperodon hydrochloride dissolved in water-soluble, nondrying, hygroscopic polyethylene glycol.

Indications: For treotment of bocterial otitis externo, bocteriol otitis medio ond otomycosis. In otitis media, this preparotion is not effective if the tymponic membrone is intoct.

FURACIN (nitrofurozone) ond Micofur (nifuroxime) ore octive ogoinst o voriety of grom-positive and gram-negotive orgonisms. Activity versus Pseudomonos sp. is limited to certoin stroins. Micafur (nifuroxime) is octive ogoinst Condido (Manilio) olbicons.

Precautions: Sensitizotion moy occur with prolonged use ond is more likely to develop in eczematous otitis externo. To minimize such reoctions (o) limit opplicotion to o week or less, ond (b) ovoid use of excessive omounts which moy run down the foce.

This preporotion is not indicoted for use in treotment of cholesteotomo, where surgicol intervention is necessory.

Supplied: Bottle of 15 cc. with dropper.

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Woman's Auxiliary

A Preview

Barbara Nock (Mrs. Wesley S.)

"Promises" might be a better title for this communication, but the main thing is that you know we will continue the work we have been doing and will take on any jobs you fellows might dream up for us this year. Our purposes and goals remain the same, supplementing your efforts for the advancement of medicine and public health through philanthropic and educational programs that may be conducted for betterment of the health needs of the people of Florida, cultivating friendly relations, promoting mutual understanding among the families of medical doctors, assisting the county auxiliaries in implementing projects and receiving and disbursing gifts for the promotion of the objects of the organization.

Community Concern is our theme for the year and we have adopted the slogan, "Let's Make Waves." Concern alone is never enough. The emphasis will be on the county auxiliaries. By recruiting and uniting our potential woman power, working closely with our medical societies, directing our efforts to the real needs in our communities and letting them know we care, our influence can swell into a wave rather than just making ripples which reach out but seldom peak.

Although we didn't have our full complement of delegates for the annual AMA meeting in Atlantic City, what we lacked in quantity we made up in quality. The two immediate past presidents, Marion Gilliland (Mrs. C. H.) and Bennie Spanjers (Mrs. Arnold J.); the Chairmen of our Health Careers and WA-SAMA Committees, Lynn Tanner (Mrs. Terry F.) and Pat Thames (Mrs. Thomas B.) and Catherine DeVito (Mrs. James J.), our president-elect, joined me in attending.

The highlights of the convention were a roster of prominent speakers, an opportunity to compare "how it is done" in other states, making new friends and seeing old ones. Thanks to your Executive Vice President, Mr. Harold Parham, we all were able to see President Nixon and hear his health message to the House of Delegates. This was an unexpected "goody."

The proudest moments came when our own Jane Hewit (Mrs. Linus) from Tampa was installed as a director for a two year term and when we learned that Marion Gilliland of Gainesville was to serve as Southern Regional Chairman of International Health Activities. These women will represent Florida with distinction and will be a tremendous help to us.

Mrs. G. Prentiss Lee of Portland, Oregon was installed as president of the Auxiliary. Many of you met her when she was the national representative to our auxiliary meeting in June of 1970, so you know she is a most dynamic, gracious and "now" woman. Her enthusiasm challenges us all to exert ourselves in generating faith and pride for medicine.

Drug Abuse Education will again be carried on throughout the state. Bennie Spanjers, as a member of your Ad Hoc Committee on Drug Abuse and as Chairman of our Children and Youth Committee will be the liaison, guiding us in helping to combat this problem. Programs on VD and Alcoholism have been updated and are available for distribution. Recruitment through our Health Career Clubs, WA-SAMA and Scholarship programs has and will continue to be stressed. Legislative matters will be geared to education and show what can be done on city and county as well as state and national level. We will be working closely with your capable staff in Tallahassee and with your FMA committees.

We hope to surpass our financial support for the Florida Medical Foundation and to the History of Medicine Museum in St. Augustine. Christmas card sales plus donations from individuals and counties will hopefully see our amount to AMA-ERF grow, also. Check with your county auxiliary AMA-ERF chairman; she will be happy to show you the selection and take your order for cards. International Health Activities will again benefit from the Bazaar at our Fall Conference in Orlando, October 25-27.

Mrs. Nock is president, Woman's Auxiliary to the Florida Medical Association.

Speaking of the Fall Conference, some of you just might like to join us. A tour of Disney World is on the program for Monday afternoon. If you are interested, contact your county auxiliary president or me. We will be glad to fill you in on the details.

An even greater increase in membership is vital. This is another area in which you men can help us help you. Is your wife an active member of the auxiliary? We know that it is not possible for many doctors' wives, but, is she a dues paying member? What better philanthropic outlet than the causes closest to her husband's professional interests? If you will look at our past accomplishments, with only a fraction of the potential membership, just imagine what we could do with every doctor's wife helping.

None of our programs can succeed without hard work, support and dedication on the part of the individual county member, your wives. The national and state organization can only furnish guidance and materials; the action is in the counties, so please, will you make it a must to find out what it's all about and encourage her to join the other doctors' wives, who are trying to help in those areas which you men find hard to cover because of your busy schedules?

If you are a member of the Southern Medical Association, hope you are planning to be down for the meeting in Miami Beach, November 1-4. We want this to be the best attended one we have ever had, since Peggy Wilcox (Mrs. Abbott Y. Jr.) from St. Petersburg will be installed as the Auxiliary president. We will be having our meetings at the Eden Roc. The local committees have been working hard on both the scientific and entertainment programs for this meeting. You all come!

When I was asked to contribute to your Journal, my concern was that we wouldn't have enough to fill one column, let alone a whole page, but have lots of notes left over. Safety, Mental Health, Home Centered Health Care, our participation on the Florida Health Manpower Council, each of these could add another paragraph and we haven't even touched on the civic boards and committees and hospital auxiliaries that many of our women serve on in the interest of better health in their communities.

We are looking forward to another good year and will keep you posted.

▶ Mrs. Nock, 3431 North Moorings Way, Miami 33133.

Physician's Assistant Amendment to the Medical Practice Act

The following item was submitted by the Florida Board of Medical Examiners for publication in the Journal:

The physician's assistant amendment to the Medical Practice Act of Florida became law July 1, 1971.

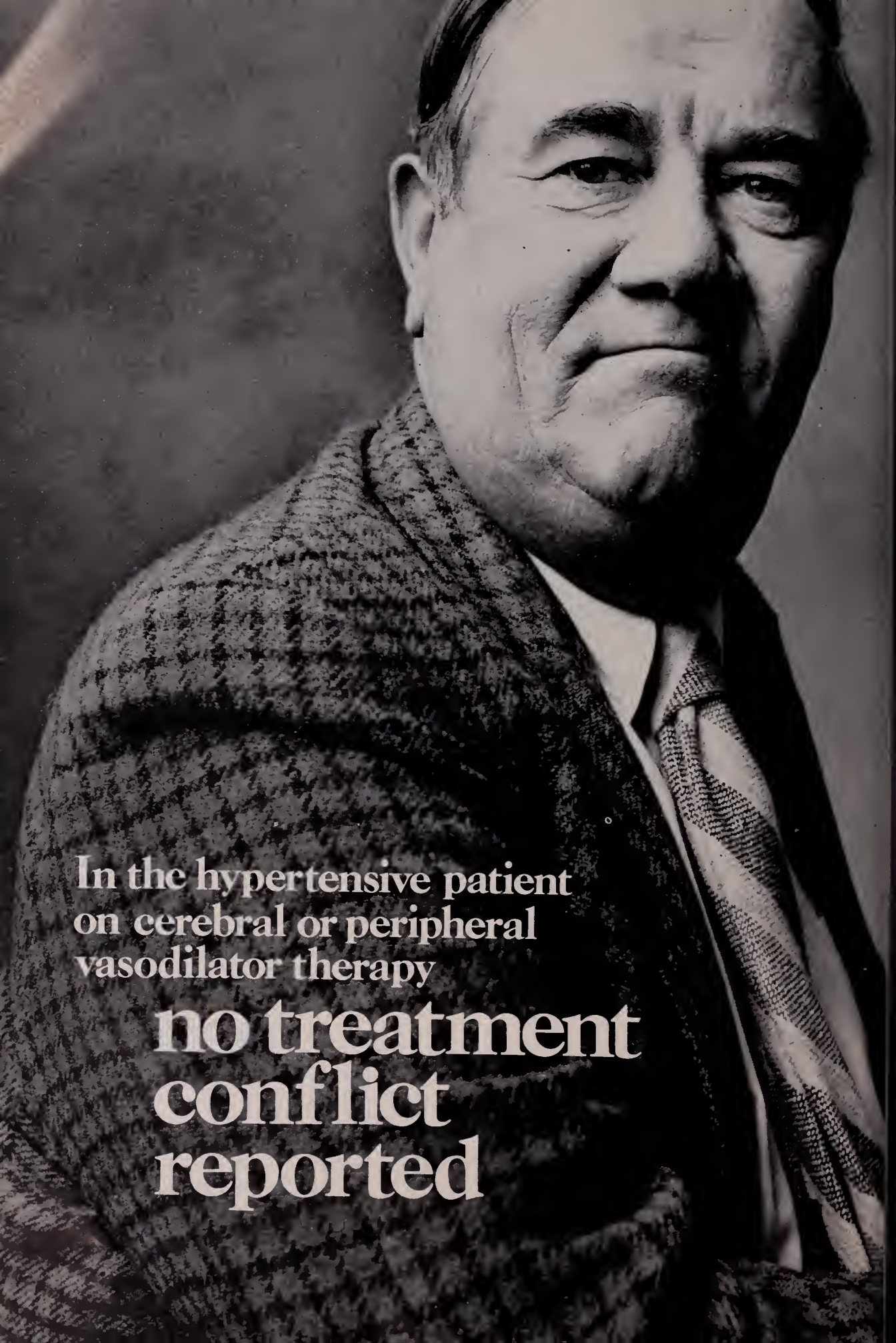
The legislative intent is the creation of a new category of allied health personnel who will be the product of a specific approved curriculum leading to the designation "physician's assistant." The intent is not that everyone who has worked for a physician for any number of years should suddenly become qualified to become designated as a "physician's assistant."

A "physician's assistant" must be certified by the Board of Medical Examiners and the physician for whom he will work and to whom he will be responsible will be certified for having a "physician's assistant."

"Physician's assistants" will not be allowed to operate independently. A hospital cannot employ a "physician's assistant" as such, but the "physician's assistant," if he is working in a hospital, must be certified to a physician, and the physician certified to have a "physician's assistant," the same as if the physician were in private practice.

The law calls for an Advisory Committee to the Board of Medical Examiners relative to "physician's assistants" curriculum. This committee will be appointed by the Governor. The Board must make rules and regulations concerning "physician's assistants" and certification of the "physician's assistant" along with the certification of the physician desiring same.

Anyone who is interested in this program may send in evidence of interest or request an application which will be put on file and returned to the person at the appropriate time. It must be stressed that until one is actually certified as a "physician's assistant" and the physician for whom he will work is certified for having a "physician's assistant," he should not call himself a "physician's assistant" as this is in violation of the Medical Practice Act and is considered a felony. This does not in any way change the status of any person presently working for a physician.


In the hypertensive patient
on cerebral or peripheral
vasodilator therapy
no treatment
conflict
reported



VASODILAN®
(ISOXSUPRINE HCl)
the compatible vasodilator

- has not been reported to complicate the treatment of hypertension.
- conflicts have not been reported with concurrently administered antihypertensives, diuretics, corticosteroids or miotics.
- complications in the treatment of diabetes, peptic ulcer, coronary insufficiency, glaucoma or liver disease have not been reported.

In fact, there are no known contraindications in recommended oral doses other than it should not be given in the presence of frank arterial bleeding or immediately postpartum.

Although not all clinicians agree on the value of vasodilators in vascular disease, several investigators[1-4] have reported favorably on the effects of isoxsuprine. Effects have been demonstrated both by objective measurement[2,4] and observation of clinical improvement.[1,3]

Composition: VASODILAN tablets, isoxsuprine HCl, 10 mg. and 20 mg. VASODILAN syrup, isoxsuprine HCl, 10 mg. per 5 ml. teaspoonful. Indications: *In cerebral vascular disorders,* for relief of symptoms due to vascular insufficiency associated with various conditions such as arteriosclerosis and hypertension. *In peripheral vascular disorders,* for relief of symptoms such as intermittent claudication, coldness, numbness, pain and cramping of the extremities—in the management of arteriosclerosis obliterans, diabetic vascular diseases, thromboangiitis obliterans (Buerger's disease), Raynaud's disease, postphlebitic conditions, acroparesthesia, frostbite syndrome and ulcers of the extremities (arteriosclerotic, diabetic, thrombotic). Dosage and Administration: In peripheral and cerebral vascular disorders—10 to 20 mg. three or four times daily. Contraindications and Cautions: There are no known contraindications to oral use when administered in recommended doses. Should not be given immediately postpartum or in the presence of arterial bleeding. Adverse Reactions: On rare occasions, oral administration of the drug has been associated in time with the occurrence of severe rash. When rash appears, the drug should be discontinued. Occasional overdosage effects such as transient palpitation or dizziness are usually controlled by reducing the dose. Supplied: *Tablets,* 10 mg.—bottles of 100 and 1000, and Unit Dose; 20 mg.—bottles of 100 and 500. *Syrup,* 10 mg. per 5 ml. teaspoonful—bottles of 1 pint.

References: 1. Clarkson, I. S., and LePere, D. M.: Angiology *11*:190-192 (June) 1960. 2. Horton, G. E., and Johnson, P. C., Jr.: Angiology *15*:70-74 (Feb.) 1964. 3. Dhrymiotis, A. D., and Whittier, J. R.: Curr. Ther. Res. *4*:124-128 (April) 1962. 4. Whittier, J. R.: Angiology *15*:82-87 (Feb.) 1964.

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Medical News

57th Annual Clinical Congress of ACS

Surgeons from 40 countries are expected to attend sessions of the 57th annual Clinical Congress of the American College of Surgeons to be held in Atlantic City, N.J., October 18-22. Attendance is expected to approach 14,000, including 10,000 physicians.

The scientific program will include, a forum on fundamental surgical problems, 17 postgraduate courses for younger surgeons, more than 45 panel discussions and symposia on current problems, 90 motion picture films, closed circuit telecasts of actual operations being performed at Thomas Jefferson University Hospital in Philadelphia, and 450 exhibits.

Michael E. DeBakey, M. D., President of the Baylor College of Medicine, will present the John H. Gibbon Jr. lecture.

Additional information may be obtained by contacting Sara Barr Cohen, Director of Publicity, American College of Surgeons, 55 East Erie Street, Chicago, Ill. 60611.

23rd Annual Scientific Assembly of AAGP

Miami Beach will be the setting for the 23rd Annual Scientific Assembly of the American Academy of General Practice, October 4-7. Scientific sessions will be held at Convention Hall, while the AAGP's Congress of Delegates will meet in the East Ballroom of the Fontainebleau Hotel beginning Saturday, October 2.

Information about the program may be obtained by writing to Mr. Mac F. Cahal, Executive Director, American Academy of General Practice, Volker Boulevard at Brookside, Kansas City, Mo. 64112.

New Appointment to Faculty of University of Florida

S. Leon Israel, M.D., internationally known obstetrician-gynecologist, has been appointed to the faculty of the University of Florida College of Medicine to serve as Professor of Obstetrics and Gynecology.

Dr. Israel is editor of the Journal of Obstetrics and Gynecology and author of "Diagnosis and Treatment of Menstrual Disorders and Sterility," one of the leading texts in female endocrinology. He also is President of the American Gynecological Society.

For the past 16 years, Dr. Israel has been a member of the faculty of the University of Pennsylvania School of Medicine.

Definition of Preventive Medicine

A definition of the term "preventive medicine" has been adopted by the Board of Regents of the American College of Preventive Medicine.

The official definition defines preventive medicine as "that branch of medicine which has primary interest in preventing physical, mental and emotional disease and injury in contrast to treating the sick and injured. Secondarily, it is concerned with slowing the progress of disease and conserving maximal function."

William P. Richardson, M.D., President of the College, explained that a clear definition was needed because preventive medicine is being given increased emphasis by the medical profession and the government.

American Board of Family Practice Examinations

The American Board of Family Practice has announced that it will conduct its next examinations for certification April 29-30, 1972, at various centers throughout the country.

The Board must have applications by February 1, 1972. Additional information may be obtained by writing: Nicholas J. Pisacano, M.D., Secretary, American Board of Family Practice, Inc., University of Kentucky Medical Center, Annex #2, Room 229, Lexington, Ky. 40506.

American Physicians and Surgeons Guest Speaker

J. Enoch Powell, as Minister of Health in Great Britain, presiding over that country's national health plan for three years, will speak in the United States in October.

Mr. Powell, now a member of Parliament, will address the Association of American Physicians and Surgeons during the Association's annual meeting at Clayton, Mo., on October 8.

Mr. Powell served as Minister of Health from 1960 to 1963 and according to an AAPS news release, he is considered "the world's leading authority on politically-controlled medicine."

Delegate to United States-Japan Cooperative Medical Science Program

The State Department has appointed Leighton E. Cluff, M.D., of Gainesville, as one of 10 United States delegates to the United States-Japan Cooperative Medical Science Program.

The program is a joint research effort in the biomedical sciences, concentrating on health problems of Asia.

Dr. Cluff, Professor and Chairman of the Department of Medicine at the University of Florida College of Medicine, is an international authority on infectious diseases and drug reactions.

Research Center for Atherosclerosis

A Specialized Center of Research in Atherosclerosis is being established at the University of Miami School of Medicine under a grant from the National Heart and Lung Institute.

The program's objective will be to prevent heart attacks in adulthood by identifying children prone to heart disease and initiating preventive measures. Principal and co-principal investigators are Dr. Sidney Blumenthal, Professor of Pediatrics and Associate Dean for Continuing Education; and Dr. Mary Jane Jesse, Associate Professor of Pediatric Surgery.

The total grant is $2.6 million, of which $533,691 has been dispensed. The grant period started June 1 and will extend to May 31, 1975.

The center is one of 13 such facilities sponsored by the Heart and Lung Institute. It is the only one in which studies are focused on infants and children.

American Society of Cytology Meeting

The 19th Annual Scientific Meeting of the American Society of Cytology will be held in Washington, D.C., November 3-6, 1971.

Additional information may be obtained from Warren R. Lang, M.D., Secretary-Treasurer, 7112 Lincoln Drive, Philadelphia, Pa. 19119.

Elected to Membership in ACP

Gerald H. Stein, M.D., Clinical Instructor in Medicine at the University of Florida College of Medicine in Gainesville, has been elected to membership in the American College of Physicians.

Elected to National Academy of Sciences

Max Michael Jr., M.D., of Jacksonville, has been elected a member of the new Institute of Medicine in the National Academy of Sciences.

The Institute brings together persons in the health professions, behavioral and basic sciences, administration, law and engineering, to study and comment on national issues concerning health care and related topics.

Dr. Michael is executive director of the Jacksonville Hospitals Education Program, Inc.

Postgraduate Course in Cardiology

A three-day postgraduate course in cardiology will be conducted in Miami, Oct. 7-9, under the sponsorship of the American Heart Association's Council on Clinical Cardiology and the University of Miami School of Medicine.

Fees are $60 for Fellows and Members of the Council and $100 for others. Information may be obtained from the Department of Medical Education, American Heart Association, 44 East 23rd St., New York City, N.Y. 10010.

Twenty-Third Annual Convention AAFP

Thousands of family doctors will converge on Miami Beach this fall. The occasion will be the 23rd Annual Convention of the American Academy of Family Physicians which is set for Oct. 4-7. Convention headquarters will be the Hotel Fontainebleau, while scientific sessions will be held at the Convention Hall beginning Monday, October 4.

AAFP's Congress of Delegates will have its first session Saturday morning, October 2.

FMA Meetings

September 12	Committee on Government Programs—10:00 a.m. Tallahassee (Downtown Holiday Inn)
22	Ad Hoc Committee on Drug Abuse—10:00 a.m. Tampa (Causeway Inn)
25-26	Judicial Council Jacksonville (FMA Board Room)
October 6-10	Fall Board of Governors Freeport Grand Bahama Island (Xanadu Club—Yacht & Tennis Club)
22	Florida Committee on Smoking and Health—9:00 a.m. Jacksonville (FMA Board Room)
31	School Health Medical Advisory Committee—10:00 a.m. Committee on Child Health Jacksonville (FMA Board Room)
December 7	Florida Joint Council on Health of Aging—10:00 a.m. Jacksonville (FMA Board Room)
11-12	Judicial Council Miami

AMA Unveils Program of Liability Insurance

A cooperative program aimed at easing the cost and increasing the availability of professional liability insurance was unveiled the last week of July. The program will be offered to physicians through state and county societies, and ties liability insurance to peer review as part of a major effort to eliminate the cause of claims. It provides for active involvement of the medical profession and offers protection to individual physicians against unexpected cancellation of coverage. Risk control rather than the traditional transfer of risk means a joint effort to pinpoint the causes of claims and reduce their chance of recurring.

Each program will operate at state or county level under an administrator selected by the local medical society. The peer review concept will permit members of a medical society to screen all physicians applying for the plan and to evaluate the medical evidence when claims are made.

Principal objectives of the new program are to: Reduce the frequency of claims. Alert physicians to ways of eliminating the causes of claims. Resist unfounded claims. Resolve legitimate claims promptly and fairly. Provide physicians with long-term financial protection at fair and realistic rates. (No physician can be dropped from the program without the consent of his medical society). Research alternate methods of reparation for medical injuries.

Reorganization of SSA Bureau of Health Insurance

The Social Security Administration's Bureau of Health Insurance, which administers Medicare, is undergoing extensive reorganization.

An announcement from the Bureau said that many of the functions centralized in Baltimore will be assigned to health insurance regional offices, including the one in Atlanta. These offices will establish most program relations with intermediaries, state health agencies, providers and other health care organizations.

Expanded authority will be given to regional offices to conduct periodic reviews of providers, to approve intermediary, carrier, and state agency budgets and to administer Medicare fraud detection and prevention programs.

The changes, according to the Bureau, should make the Medicare program "more responsive to local problems and needs."

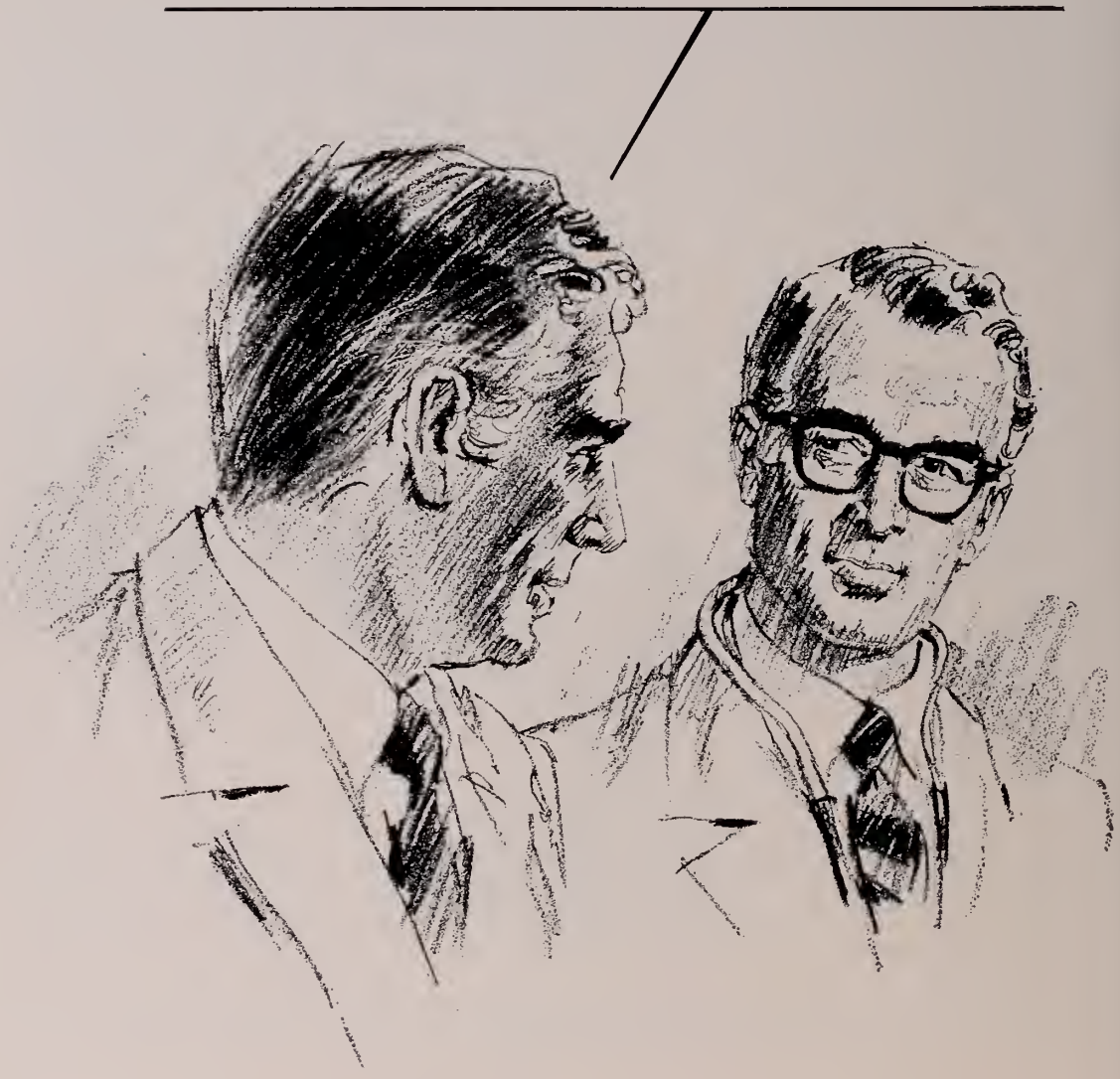
Cultural Patterns of Ethnic Groups

The University of Miami School of Medicine has been commissioned to compile information on the cultural patterns of ethnic groups in South Florida. The work will be carried out with the assistance of a $180,000 grant from the Commonwealth Fund of New York.

Included in the studies will be groups who tend to be reluctant to accept scientific health care. An announcement from the University noted that some of these groups often seek out faith healers, cultists and the like.

One premise of the investigation is that physicians and allied health personnel, by acquiring a knowledge and understanding of the subcultures under study, may be in a position to relate to them better.

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Warnings: USE IN PREGNANCY: Since safety of the use of this preparation in pregnancy, during lactation, or in the child-bearing age has not been established, use of the drug in such patients requires that the potential benefits of the drug be weighed against its possible hazard to the mother and child.

USE IN CHILDREN: The safe and effective use of this drug in children has not been established; therefore, the physician must weigh the benefits against the potential hazards.

Precautions: It has been reported that prolonged or excessive use of phenacetin may result in nephrotoxicity. Caution, therefore, should be exercised when Norgesic is administered to patients with renal disorders. It should also be used with caution in patients with tachycardia.

Adverse Reactions: Side effects of Norgesic are those seen with APC or those usually associated with mild anticholinergic agents. These may include tachycardia, palpitation, urinary hesitancy or retention, dry mouth, blurred vision, dilatation of the pupil, increased intraocular tension, weakness, nausea, vomiting, headache, dizziness, constipation, drowsiness, and rarely, urticaria and other dermatoses. Infrequently an elderly patient may experience some degree of confusion. Mild central excitation and occasional hallucinations may be observed. These mild side effects can usually be eliminated by reduction in dosage. One case of aplastic anemia associated with the use of Norgesic has been reported. No causal relationship has been established.

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Medical Licenses Granted

The Florida State Board of Medical Examiners report that of the 1,142 applicants who took the examination of the Board held January 17-19, 1971, at Jacksonville, 877 passed and have been issued licenses to practice medicine in Florida. The names, towns, medical school and year of graduation of the successful applicants follow:

Abney, Howard T., Gainesville (Medical College of Georgia, 1968)
Acosta, Roberto E., Orlando (U. of Salamanca, 1937)
Acra, Wadi D., Norfolk, Va. (Santo Domingo U., 1956)
Agha, Abdul S., Miami (Baghdad Medical School, 1963)
Agliano, Dennis S., Metairie, La. (U. of Miami, 1968)
Agre, Rodger S., Bryan Mawr, Pa. (Jefferson Medical College, 1963)
Aguilar, Carlos J., Miami (Havana U., 1948)
Aguilar, Ephraim G., Hazard, Ky. (U. of Philippines, 1958)
Alena, Gordon R., Orange Park (New York Medical College, 1964)
Alfonso, Emilio, New York, N.Y. (U. of Salamanca, 1963)
Alitowski, Leon, Scarsdale, N.Y. (National U. of Colombia, 1954)
Alonso, Miguel R., San Antonio, Texas (Yale U., 1963)
Alvarez, Domingo G., Orlando (Havana U., 1941)
Alvarez, Victor M., San Diego, Calif. (U. Nacional De Colombia, 1966)
Alzola, Jose M., Hazelwood, Mo. (Havana U., 1938)
Amikam, Benjamin, Miami Beach (Hebrew U. of Jerusalem, 1955)
Anderson, Charles B., St. Louis, Mo. (Yale U. 1962)
Anderson, Douglas J., New York, N.Y. (Northwestern U., 1969)
Anderson, Eric G., Derry, N.H. (Edinburgh U., 1958)
Anderson, Ernest T., Rochester, N. Y. (Albany Medical College, 1945)
Andrews, William J., Park Ridge, Ill. (U. of Illinois, 1947)
Annicchiarico, Alfonso E., Fort Lee, Va. (Cartagena U., 1963)
Aportela, Gladys H., Gainesville (Havana U., 1953)
Arango, Carlos, Brooklyn, N.Y. (U. of Autioguia, 1965)
Arbesu, Mario A., Miami Beach (U. of Madrid, 1967)
Arey, Donald L., Orlando (U. of Virginia, 1966)
Ascencios, Aquiles, Hornell, N.Y. (San Fernando Medical School, 1962)
Ashcom, Richard C., Dayton, Ohio (Wayne Medical School, 1947)
Ashkar, Fuad S., Miami (American U., 1962)
Ason, Rafael, Jacksonville (U. of Santiago, 1968)
Auchenbach, Ralph C., Winter Park (Johns Hopkins U., 1968)
Aycoth, Edward D., Charleston, S.C. (U. of North Carolina, 1969)
Azan, Luis M., Tampa (Havana U., 1953)
Azar, Maurice M., Camillus, N.Y. (Tehran Medical School, 1957)

Baer, George, Bala Cynwyd, Pa. (George Washington U., 1935)
Balaban, Selma A., Merion, Pa. (Woman's Medical College, 1957)
Baldwin, Benjamin C., Decatur, Ga. (Medical College of Georgia, 1965)
Baldwin, Charles J., Bossier City, La. (Loyola Stritch Medical School, 1964)
Bambergér, Charles, Glen Oaks, N.Y. (U. of Chile, 1969)
Bane, Don B., Charleston, S.C. (Tulane U., 1964)
Baney, Richard N., Pittsburgh, Pa. (U. of Pittsburgh, 1963)
Barlis, Arthur A., Stoneham, Mass. (New York Medical College, 1964)
Barlow, Mahlon H. Jr., Baltimore, Md. (Emory U., 1962)
Baroco, Paul T., Hurlburt Field (U. of Tennessee, 1969)
Barold, Samuel S., Rochester, N.Y. (Sydney Australia Medical School, 1960)
Barr, Richard I., Fort Benning, Ga. (U. of Louisville, 1967)
Barreau, Jose G., Chicago, Ill. (U. of Salamanca, 1964)
Barreras, Luis, Memphis, Tenn. (Havana U., 1943)
Barrison, William J. Jr., Lewisburg, Pa. (George Washington U., 1951)
Barrocas, Marcos, Fort Ord, Calif. (U. of Madrid, 1963)
Barry, William S., Pensacola (Albany Medical College, 1969)
Bass, Harold M., Mineola, N.Y. (Albany Medical College, 1966)
Baver, Allen, Fort Myers (Chicago Medical School, 1944)
Baylus, Meyer M., Pikesville, Md. (U. of Maryland, 1930)
Beer, Daniel T., Woodmere, N.Y. (State U. of New York, 1956)
Beirne, Daniel K., Upper Montclair, N.J. (National U. of Ireland, 1958)
Bell, Michael C., Homestead (U. of Pittsburgh, 1964)
Bellis, John A., Kennett Square, Pa. (U. of Pennsylvania, 1941)
Benito, Jose, Houston, Texas (Havana U., 1945)
Bennett, George M., Miami (U. of Utah, 1968)
Bennett, Grant M., Fort Lee, N.J. (State U. of New York, Downstate, 1966)
Benyunes, Abraham, Orlando (Georgetown U., 1963)
Berger, Alberto J., Darby, Pa. (U. of Buenos Aires, 1962)
Berkowitz, Martin, Wilmette, Ill. (State U. of New York, Syracuse, 1959)
Berkowitz, Marvin A., Ocean, N.J. (U. of Leiden, Holland, 1962)
Berkowitz, Morton I., Pittsburgh, Pa. (U. of Pittsburgh, 1957)
Bernabei, Armand L. Jr., Drexel Hill, Pa. (Temple U., 1969)
Bernstein, Leonard H., Hampton, Va. (Western Reserve U., 1963)
Bertematti, Joaquin, Miami (Havana U., 1949)
Bertman, Martin I., Bethesda, Md. (New York Medical College, 1965)
Bettenhausen, Richard L., Miami (Northwestern U., 1966)
Biasi, Vincent J., Rockville, Md. (Georgetown U., 1952)
Bidstrup, Richard J., Fort Walton Beach (Louisiana State U., 1962)
Bilodeau, Richard G., Indianapolis, Ind. (Georgetown U., 1964)
Binder, Perry S., Los Angeles, Calif. (Northwestern U., 1969)
Birndorf, Lawrence A., Gainesville (U. of Michigan, 1967)
Blake, Wendell O., Nashville, Tenn. (Meharry Medical College, 1967)
Bloch, Edward J., Belle Harbor, N.Y. (New York Medical College, 1969)
Block, Alan J., Gainesville (Johns Hopkins U., 1962)
Block, Melvin A., Grosse Pointe Farms, Mich. (Indiana U., 1944)
Bloodwell, Robert D., Metairie, La. (Baylor U., 1957)
Bockman, Albert A., Philadelphia, Pa. (Temple U., 1935)
Boleman, Austin P. Jr., Largo (Cornell U., 1938)
Bonzon, Teotimo D., Syracuse, N.Y. (Far Eastern U., 1961)
Borer, Michael J., New Orleans, La. (Marquette U., 1965)
Boudet, Lino E., Miami (Havana U., 1949)
Bourguignon, Roger L., Orlando (U. of Brussels, 1954)
Bowman, John R., Plantation (Vanderbilt U., 1951)
Boyd, Hugh L., Ocean Springs, Miss. (Tulane U., 1944)

Boyer, Andrew G., Rochester, Minn. (U. of Iowa, 1969)
Boys, Fay F., Munster, Ind. (Kansas U. Medical School, 1927)
Boysen, Bette Marie E., Gulf Breeze (Stritch Medical School, Loyola U., 1968)
Brandus, Victor, New York, N.Y. (Bucharest Medical School, 1935)
Braukman, Ernest H., Pueblo, Colo. (U. of Colorado, 1957)
Bre, Jacinto L., Emporia, Va. (U. of Buenos Aires, 1959)
Brennan, Frances E., Pensacola (Medical College of Alabama, 1968)
Bretz, Gedeon W., Baltimore, Md. (Medical College Budapest, 1960)
Bridges, Clifton L., Miami (Emory U., 1969)
Brodsky, Jorge, St. Petersburg (U. of Buenos Aires, 1961)
Brown, David L., Lexington, Ky. (New York Medical College, 1959)
Brownell, Thomas S., Lighthouse Point (U. of Kansas, 1940)
Bruckner, Howard L., Augusta, Ga. (New York Medical College, 1966)
Brumbelow, Concepcion C., Gainesville (U. of Santo Tomas, 1963)
Brumer, Marshall J., Brooklyn, N.Y. (Chicago Medical School, 1967)
Bryant, David L., Jacksonville (U. of Florida, 1967)
Bryant, James W., Memphis, Tenn. (U. of Tennessee, 1956)
Buchanan, Wallace D., South Bend, Ind. (Indiana U., 1933)
Bueno, Herman, Cincinnati, Ohio (Colombia's National U., 1947)
Bukantz, Samuel C., New York, N.Y. (New York U., 1934)
Bunn, Jack C., Gainesville (Harvard Medical School, 1966)
Burkhard, Robert J., Cuyahoga Falls, Ohio (St. Louis U., 1946)
Burns, David R., Eglin AFB (Hahnemann Medical College, 1966)
Burns, Winton H., Fort Rucker, Ala. (Indiana U., 1963)
Burnsed, David W., Gainesville (U. of Florida, 1967)
Byer, Barry, Washington, D.C. (U. of Miami, 1969)

Calderin, Alberto E., Miami Beach (Havana U., 1943)
Call, William H., Golden, Colo. (Indiana U., 1956)
Calodney, Leonard, Miami (Washington U., 1969)
Canaan, Charles J., Warren, R.I. (Cairo U., 1957)
Canizares, Frederico, Miami (Havana U., 1927)
Cantwell, Ronald J., Miami (Otago U., 1961)
Capriotti, Robert, Altoona, Pa. (Hahnemann Medical College, 1963)
Caral, Oreste F., Hardwick, Ga. (Havana U., 1934)
Cardinale, Robert, Newark, N.J. (U. of Padova, Italy, 1965)
Carmona, Agustin, Orlando (Havana U., 1960)
Carmona, Francisco, Chicago, Ill. (Cartagena Medical School, 1947)
Carney, Francis E., Gainesville (U. of Florida, 1969)
Carreno, Jose A., Wadsworth, Kansas (Havana U., 1934)
Carrillo, Luis E. Maracaino, Venezuela (U. of Brazil, 1958)
Carrodeguas, Luis, Milledgeville, Ga. (U. of Havana, 1938)
Carter, Edward W., Eglin AFB (Baylor U., 1964)
Carver, Richard F., Fern Park (State U. of New York—Upstate, 1963)
Casademont, Angel C., Hialeah (Granada Medical School, 1969)
Casas, Osvaldo, Milledgeville, Ga. (Havana U., 1949)
Casey, James T., Gainesville (Albany Medical College, 1965)
Cassan, Stanley M., Rochester, Minn. (McGill U., 1962)
Castellanos, Carlos F., Hialeah (Havana U., 1940)
Castillo, Boris D., Jersey City, N.J. (U. of Guayaquil, 1965)
Castle, James R., Gainesville (West Virginia U., 1969)
Chang, Jose L., Huntington, W. Va. (Far Eastern U., 1964)
Chapman, William L., Pittsburgh, Pa. (Temple U., 1945)
Charytan, Chaim, Bronxville, N.Y. (Albert Einstein Medical College, 1964)
Chastanet, David A., Yonkers, N.Y. (Freiburg U., 1963)
Choi, Hanseek, Tampa (Seoul National U., 1964)
Chudnovsky, Natalio, Queens Village, N.Y. (U. of Buenos Aires, 1963)
Church, Thomas C., Metairie, La. (Wayne State U., 1965)
Clark, Orlo H., Chattahoochee (U. of Rochester, 1936)
Clark, Ross N., New York, N.Y. (U. of California, 1967)
Clarke, John S., Fort Benning, Ga. (Albany Medical School, 1963)
Clarkson, David R., Pittsburgh, Pa. (U. of Florida, 1969)
Clontz, Luther H., Morganton, N.C. (U. of North Carolina, 1957)
Cochran, Thomas R., Satellite Beach (U. of Alabama, 1969)
Cofer, Hershel F., Canal Zone (Medical College of Georgia, 1962)
Cohen, Harold H., Mansfield, Ohio (Geneva Medical School, 1956)
Coleman, John W., New York, N.Y. (Georgetown U., 1964)
Coleman, William P., New Orleans, La. (U. of Virginia, 1953)
Comas, Mario E., Baltimore, Md. (Havana U., 1943)
Condron, Colin J., Key Biscayne (Trinity College, 1961)
Conn, Ross S., Greensburg, Pa. (Chicago Medical School, 1969)
Connor, Joseph A. Jr., Tampa (George Washington U., 1943)
Conrad, Stanley W., Philadelphia, Pa. (U. of Pennsylvania, 1943)
Cooke, Alfred J., Garden City, N.Y. (Jefferson Medical College, 1964)
Cooper, Joel J., Searingtown, N.Y. (U. of Michigan, 1963)
Cooper, William L., St. Petersburg (Wayne U., 1945)
Cordero, Renato L., Chattanooga, Tenn. (Havana U., 1948)
Corin, Morton S., San Antonio, Texas (State U. of New York-Downstate, 1965)
Correa, Mario, Chicago, Ill. (Havana U., 1962)
Corriero, William P., Fort Lauderdale (George Washington U., 1926)
Corvese, Louis A., Jacksonville (Yale U., 1956)
Counts, George W., Miami (U. of Iowa, 1965)
Courington, Frederick W., Gainesville (U. of Florida, 1965)
Cox, William S., Orlando (U. of Tennessee, 1967)
Cox, William W., Ormond Beach (U. of Tennessee, 1944)
Craig, David M., St. Paul, Minn. (U. of Minnesota, 1939)
Craig, Walter P. Jr., Fort Walton Beach (Tulane U., 1969)
Cross, Alfred C., Shreveport, La. (U. of Arkansas, 1953)
Crystal, Franklin A., Brooklyn, N.Y. (U. of Pennsylvania, 1969)
Cubarrubia, Rodolfo C., Strongsville, Ohio (Far Eastern U., 1963)
Cullen, Robert F., Natick, Mass. (Seton Hall U., 1963)
Cunningham, James B., Miami (Durham U., England, 1960)
Cura, Angela, Miami (Havana U., 1952)
Curry, Rupert C., Gainesville (U. of Florida, 1969)
Curtin, Jerome E., Greensburg, Pa. (Georgetown U., 1942)

Dabney, James C., Scott AFB, Ill. (U. of Mississippi, 1966)
Da Costa, Henrique G., Daytona Beach (Brazil U., 1957)
D'Alessandro, Arthur J., South Orange, N.J. (Columbia U., 1935)
Daly, James K., Jacksonville (Medical College of Virginia, 1965)
Danielson, Carl L., Butler, Pa. (U. of Pittsburgh, 1959)
Davis, Dale G., Miami (U. of Illinois, 1964)
Davis, Eschol E., Charleston, S.C. (Tulane U., 1953)
Davis, Richard M., Casselberry (New York Medical College, 1969)
Davis, William B., Hillsdale, Mich. (U. of Michigan, 1954)

Deal, Pamela C., Gainesville (U. of Florida, 1969)
Deal, Thomas E., Gainesville (U. of Florida, 1969)
Deardourff, Stephen L., Miami (Ohio State U., 1968)
de Armas, Raul, Ithaca, N.Y. (Havana U., 1940)
Debs, Edmond A., Miami (Havana U., 1951)
Deen, Floyd, Morven, N.C. (Medical College of Georgia, 1963)
Dehgan, Robert B., Orange Park (Pahlavi U., 1961)
DeKryger, Lewis L., Orlando (U. of Michigan, 1967)
De La Perriere, Armand A., Savannah, Ga. (Medical College of Georgia, 1963)
de la Presilla, Jacinto F., Chattahoochee (Havana U., 1946)
de la Torre Ugarte, Luis F., Miami (San Marcos U., 1956)
de Lerma, Carlota, Seminole (U. Chile, 1946)
Delgado, Ignacio U., Miami Beach (Havana U., 1961)
Del Rio, Gabriel G., Savannah, Ga. (Havana U., 1927)
DeMatteis, Albert A., St. Petersburg (Hahnemann Medical College, 1942)
DeMenezes, Jose E., Fort Bragg, N.C. (U. of Minas Gerais, 1964)
DeMeo, Raphael R., Hollis, N.Y. (Long Island Medical College, 1939)
DePadua, Constante V., Gainesville (U. of the Philippines, 1957)
DeSouza, William C., Miami (National U. of Ireland, 1965)
Dewar, William D., Kenton, Ohio (Ohio State U., 1944)
Diaz, Esteban V., Bel-Air, Md. (Havana U., 1946)
Diaz, Julio M., Miami (Havana U., 1941)
Diaz-Torres, Pedro M., Guaynabe, Puerto Rico (U. of Puerto Rico, 1960)
Dieguez, Adolfo, Orlando (Havana U., 1950)
Diehl, Earl H., Birmingham, Ala. (U. of Florida, 1969)
Diez, Hugo, Miami (Havana U., 1955)
Di Giorgi, Salvatore, Miami (U. of Catania, 1956)
Dix, John H., Cuyahoga Falls, Ohio (Western Reserve, 1945)
Dix, Robert C., Milton, Pa. (Jefferson Medical College, 1944)
Dixon, Sammie D., Greenville, S.C. (Medical College of Georgia, 1969)
Dobes, William L., Rochester, Minn. (Emory U., 1969)
Dobson, Dean M., Gainesville (Bowman Gray School of Medicine, 1968)
Dourron, Maria L., Milledgeville, Ga. (Buenos Aires U., 1956)
Downs, John B., Gainesville (U. of Florida, 1969)
Dreifus, Leonard S., Narberth, Pa. (Hahnemann Medical College, 1951)
Druce, Sidney, New York, N.Y. (Royal College, Edinburgh, 1940)
Drury, Wiley L., Winter Park (Medical College of Georgia, 1968)
Dunn, Cedric E., Beaver Falls, Pa. (Hahnemann Medical College, 1936)
Dunn, Jack, Uniontown, Pa. (U. of Illinois, 1942)
Durango, Luis A., Chicago, Ill. (Antioquia Medical School, 1956)

Eckelberg, Merlyn E., Balboa Heights, Canal Zone (U. of Wisconsin, 1964)
Eich, Wilbur F., Jacksonville (Tulane U., 1964)
Eisenberg, Harry V., Brooklyn, N.Y. (Boston U., 1968)
El-Tobgui, Mahmoud A., Bronx, N.Y. (Cairo U., 1963)
Encarnacion, Efren A., Chicago, Ill. (U. of Santo Tomas, 1959)
Enderle, Frank J., Atlantic Beach (Indiana U., 1963)
Engelbaugh, Harold E., Cleveland, Ohio (Marquette U., 1959)
Eppes, Williford, Newark, Delaware (U. of Maryland, 1947)
Epstein, Barry M., Hallandale (State U. of New York-Buffalo, 1967)
Epstein, Samuel, Brooklyn, N.Y. (New York U., 1934)
Eschelman, Lawrence T., Portland, Ore. (Stanford U., 1964)
Esteban, David P., Des Plaines, Ill. (U. of Santo Tomas, 1953)
Estes, Ben N., Charleston, S.C. (Medical College of South Carolina, 1964)
Estrada, Carolina, Torrance, Pa. (Havana U., 1945)
Evans, Oliver N., Winter Park (Medical College of South Carolina, 1959)

Farrell, William J., Evergreen Park, Ill. (U. of St. Louis 1947)
Fausel, Robert W., Orlando (U. of Maryland, 1968)
Faust, Kenneth J., Pensacola (Columbia U., 1959)
Feely, Robert E., Newport News, Va. (U. of Florida 1968)
Fernandez, Jose M., Jacksonville (Madrid U., 1969)
Fernandez, Luis E., Orlando (Havana U., 1953)
Fernandez, Rigoberto, Jacksonville (Havana U., 1954)
Fernandez-Leal, Luis G. I., Lake City (Havana U., 1950)
Fernandez, Sosa, Adalberto J., Hazard, Ky. (Havana U., 1943)
Ferro, Fermin, Miami (Havana U., 1939)
Ferro, Jose A., Blacksburg, Va. (U. of Paris, 1936)
Feuer, Martin M., New York, N.Y. (New York U., 1959)
Filberbaum, Milton B., Patchogue, N.Y. (Columbia U., 1928)
Finkelstein, Leon, Rego Park, N.Y. (U. of Bologna, 1969)
Finlayson, Gordon C., Gainesville (U. of Florida, 1969)
Fleischer, Renee A., Beechhurst, N.Y. (New York U., 1961)
Fleming, Arthur R., Gainesville (Temple U., 1946)
Fleshman, Earl K., Jacksonville (U. of Oregon, 1957)
Flint, John S., Eglin AFB (Tufts U., 1947)
Flor, Remigio J., Miami (Central U. of Madrid, 1963)
Florman, Larry D., Rego Park, N.Y. (U. of Louvain, 1969)
Font, Ramon L., Silver Spring, Md. (Havana U., 1957)
Fontanelli, Enio, Jacksonville (U. of Pisa, Italy, 1952)
Forbes, Thomas W., Orange Park (Ohio State U., 1968)
Fornos, Pedro G., Dallas, Texas (Havana U., 1947)
Fout, Larry R., Pensacola (Ohio State U., 1959)
Fox, James E., Winter Park (U. of Michigan, 1965)
Fox, James M., New Rochelle, N.Y. (U. of Wisconsin, 1968)
Frailey, George H., Mio, Mich. (State U. of New York-Downstate, 1964)
France, Frank L., Cleveland Heights, Ohio (Temple U., 1965)
Fraser, Lewis K., Gainesville (Johns Hopkins U., 1967)
Freiberg, Paul H., Brooklyn, N.Y. (U. of Lovain, 1967)
Freyre, Serafina, Coral Gables (Havana U., 1951)
Friedman, Mitchell, Miami (U. of Miami, 1967)
Frumovitz, William A., New York, N.Y. (Chicago Medical School, 1966)
Fuentes, Amaury V., Miami (Havana U., 1953)
Fulton, Harold E., Port Huron, Mich. (U. of Pennsylvania, 1948)

Gagnon, Raymond A., Beaufort, S.C. (New York Medical College, 1966)
Gale, Tristan M., Morgantown, W. Va. (Far Eastern U., 1969)
Gallardo, Annie S., Gainesville (U. of Philippines, 1964)
Gallati, George C., Harvey, Ill. (U. of Illinois, 1961)
Gamez, Carlos A., Miami (Madrid U., 1965)
Gandara, Roberto C. C., Chattahoochee (Havana U., 1943)
Gandarillas, Manuel A. P., Cleveland, Texas (Havana U., 1951)
Garay, Lincoln A., Jacksonville (Central U. of Madrid, 1967)
Garcia, Julio M., Miami (Havana U., 1963)
Gares, Gustavo, St. Petersburg (Quito, Ecuador Central U., 1953)
Gartner, Samuel, Bronx, N.Y. (Long Island Medical College, 1925)
Gassner, Walter F., Glen Oaks, N.Y. (State U. of New York-Downstate, 1967)
Geissinger, James D., Chicago, Ill. (Northwestern U., 1963)
Gelb, Alvin M., Tenafly, N.J. (New York U., 1954)
Geller, Stephanie, Rockville, Md. (State U. of New York-Downstate, 1968)

Genoe, Gordon A., Chicago, Ill. (Northwestern U., 1964)
Gilbert, Richard M., New York, N.Y. (New York U., 1968)
Gilibert, Jose E., Newtonville, Mass. (National U. of Mexico City, 1965)
Ginnis, Malcolm H., Roslyn, N.Y. (U. of Geneva, 1959)
Giral, Angel L., Bartow (Havana U., 1938)
Giusti, Vincent F., Charlottesville, Va. (U. of Pennsylvania, 1964)
Glass, Joseph L., New York, N.Y. (Columbia U. 1961)
Glickfield, Herbert W., Fort Lauderdale (Georgetown U., 1949)
Gohil, Jivanlal P., Columbia, S.C. (Topiwala National Medical School, 1963)
Gold, Marvin E., Tenafly, N.J. (Boston U., 1957)
Goldman, Richard H., Miami Beach (Tufts U., 1961)
Goldston, William R., Tampa (Duke U., 1963)
Gomez, Francisco D., Milledgeville, Ga. (Havana U., 1940)
Gonzales, Pedro I., Fort Eustis, Va. (Sto. Tomas U., 1957)
Gonzalez, Giomar, Overland Park, Kansas (Javeriana U., 1961)
Gonzalez, Luis E., Newport News, Va. (Havana U., 1957)
Gonzalez, Pedro, Chicago, Ill. (Havana U., 1954)
Goodfriend, Joseph, Jamaica, N.Y. (U. of Toronto, 1937)
Goodman, Alan N., New York, N.Y. (Boston U., 1960)
Gould, Philip R., Cleveland Heights, Ohio (Ohio State U., 1964)
Graham, Paul A., Fort Meade, Md. (Columbia U., 1961)
Gray, Rel L., Jacksonville (Louisiana State U., 1966)
Graybeal, Robert T., Gainesville (Harvard U., 1969)
Green, Robert A., Miami Springs (U. of Michigan, 1968)
Greene, Andrew F., Charleston Heights, S.C. (Harvard U., 1967)
Greenfield, Herbert Z., East Orange, N.J. (New York U., 1937)
Greenlees, Thomas W., Cobleskill, N.Y. (New York Medical College, 1949)
Griffiths, Edward K., Sterling, Ill. (U. of Pittsburgh, 1953)
Griggs, Thomas M., Gainesville (U. of Virginia, 1968)
Grinberg, Marc A., Gainesville (Cornell U., 1969)
Gripon, Edward B., San Antonio, Texas (U. of Texas, 1968)
Griswold, James F., Fort Walton Beach (U. of Ottawa, 1966)
Groover, Ray, San Antonio, Texas (Medical College of Georgia, 1965)
Gros, Gerard, Ann Arbor, Mich. (U. of Haiti, 1947)
Gros, Jose C., Memphis, Tenn. (Havana U., 1923)
Gross, Howard E., Iowa City, Iowa (U. of Nebraska, 1966)
Grundy, Laurence, Tampa (Otago Medical School, 1962)
Gstalder, Roger J., Ann Arbor, Mich. (Johns Hopkins U., 1966)
Guerrero, Juan A., Miami (U. of Santiago, 1962)
Gugliuzza, Peter V., Hollis, N.Y. (Long Island Medical College, 1938)
Gunderman, John R., Indianapolis, Ind. (State U. of New York-Buffalo, 1965)
Gutierrez, Alberto M., Cockeysville, Md. (Havana U., 1949)

Hacker, Louis C., Oak Park, Ill. (Albany Medical College, 1969)
Haher, Jane N., East Williston, L.I. (New York Medical College, 1967)
Hale, William H., Appleton, Wisc. (Northwestern U., 1950)
Hall, David L., Columbia, Mo. (U. of Tennessee, 1964)
Hall, James H., Atlanta, Ga. (Emory U., 1966)
Hall, Robert M., Gainesville (U. of Michigan, 1967)
Halle, Michael A., Mineral Wells, Texas (Howard U., 1965)
Halpern, Norman B., Jacksonville (Emory U., 1968)
Hammersberg, Jon R., Virginia Beach, Va. (U. of Florida, 1968)
Hanft, Vida, Brooklyn, N.Y. (Nagpur Medical College, 1956)
Harper, Eugene J., Silver Spring, Md. (Duke U., 1967)
Harrison, Ludwika, Miami (U. of Adelaide, 1967)
Harvey, William D., Philipsburg, Pa. (Temple U., 1960)
Hausman, Marvin S., Rockville, Md. (New York U., 1967)
Hawkins, Henry M., Gainesville (U. of Arkansas, 1964)
Hayashi, Nilda, Cleveland, Ohio (U. Buenos Aires, 1966)
Hefelfinger, David C., APO New York, N.Y. (U. of North Carolina, 1965)
Helmus, Wilbur F. Jr., Tacoma, Wash. (U. of Louisville, 1961)
Henderson, Robert R., Nashville, Tenn. (U. of Tennessee, 1962)
Hernandez, George A., Miami (Havana U., 1948)
Hernandez, Carlos, Miami (Havana U., 1960)
Hernandez, Julio J., Houston, Texas (Havana U., 1941)
Hernandez-De-Armas, Carlos M., Newark, N.J. (Havana U., 1952)
Herold, Frederick S., Rantoul, Ill. (U. of Maryland, 1965)
Herques, Anthony J., Langley AFB, Va. (State U. of New York-Downstate, 1964)
Hicks, David V., Jacksonville (U. of Liverpool, 1960)
Hill, Joseph A., Miami (U. of Miami, 1967)
Hills, Edward R., MacDill AFB (Meharry Medical College, 1966)
Hneleski, Ignatius S. Jr., Drexel Hill, Pa. (Jefferson Medical School, 1964)
Hodor, Kenneth R., Great Neck, N.Y. (New York Medical College, 1969)
Holbert, Robert D., Jacksonville (Tulane Medical School, 1967)
Holley, Byron E., Jonesboro, Ga. (U. of Miami, 1967)
Holmes, Finley C., Pensacola (U. of Tennessee, 1969)
Hoover, Ralph S., Freeport, Ill. (Iowa U., 1957)
Horowitz, Harvey A., Camp Lejeune, N.C. (Temple U., 1968)
Horowitz, Marshall, Jacksonville (U. of Basel, 1966)
Horwitz, David L., Rockville, Md. (U. of Chicago, 1967)
Hunter, Robert C., Tallahassee (U. of Chicago, 1939)
Hutchinson, Robert C., Tampa (U. of Louisville, 1969)
Hutman, Burton S., Miami (U. of Pittsburgh, 1960)
Hyman, George F., Staten Island, N.Y. (U. of Maryland, 1968)

Iglesias, Tomas J., Miami (Madrid U., 1965)
Inglis, Ervine P., Marietta, Ga. (Washington U., 1946)
Innocent, George G., Loma Linda, Calif. (Loma Linda U., 1937)
Irby, Benjamin F., Fort McPherson, Ga. (Emory U., 1964)
Isaza, Jaime, Gainesville (U. of Antioquia, 1950)
Isch, John H., Miami (Indiana U., 1967)
Iturralde, Ignacio, Miami (Havana U., 1943)

Jackson, Ernest O. Jr., Richmond, Va. (Vanderbilt Medical School, 1966)
Jackson, Gitta W., Durham, N.C. (Duke U., 1968)
Jacobo, Miguel E., Miami (U. of Madrid, 1967)
Jameson, Simon, Cleveland Heights, Ohio (Buenos Aires Medical School, 1961)
Jassir, Carlos, Bronx, N.Y. (Javeriana U., 1962)
Jilek, Jaroslay J., Jacksonville (Charles U., 1953)
Johnson, David A., Metairie, La. (Tulane Medical School, 1969)
Johnson, David B., Batavia, N.Y. (Harvard U., 1938)
Johnson, John A. Jr., Eglin AFB (George Washington U., 1958)
Johnson, Gareth R. P., Fort Rucker, Ala. (U. of Kansas, 1964)
Jones, Archbold M. Jr., Marietta, Ohio (Jefferson Medical College, 1959)
Jones, Dewey H. III, Satellite Beach (U. of Alabama, 1969)
Jones, Robert D., St. Petersburg (Columbia U., 1967)
Jovanovic, Dusan, Chicago, Ill. (U. of Belgrade, 1952)
Juarez, Jocelyn T., Miami (Cebu Institute of Technology, 1964)
Juarez, Lyn, Miami (Havana U., 1946)
Juels, Charles W., Gainesville (U. of Cincinnati, 1969)
Jukofsky, Isidore, Hollywood (Long Island Medical College, 1923)

Juncos, Luis I., Rochester, Minn. (National U. of Cordoba, 1963)

Kahaner, Harvey A., APO New York, N.Y. (Tufts U., 1963)
Kahn, Robert W., Washington, D. C. (George Washington U., 1969)
Kaplan, Sanford A., Yonkers, N.Y. (Chicago Medical School, 1954)
Kapuler, William P., Brooklyn, N.Y. (Cincinnati Eclectic M. C., 1936)
Kasdin, Jack, Newport News, Va. (U. of Florida, 1969)
Kattan, Kenneth R., Cincinnati, Ohio (Hebrew U., 1953)
Katz, Alvin, New York, N.Y. (State U. of New York-Downstate, 1963)
Katz, Arthur M., Rego Park, N.Y. (U. of Bologna, 1969)
Katz, Mervyn, Morristown, N.J. (State U. of New York-Downstate, 1958)
Kaufman, Daniel A., Mandeville, La. (Tulane U., 1969)
Kavanagh, Eden G., Douglaston, L.I., N.Y. (Manila Central U., 1963)
Kelley, Michael J., Gainesville (Washington U., 1969)
Kerlan, Robert A., Memphis, Tenn. (U. of Tennessee, 1969)
Kern, Meyer J., North Miami Beach (Tulane U., 1929)
Kerr, John E. Jr., Michigan City, Ind. (U. of Illinois, 1953)
Khalil, Tawfik A. K., New York, N.Y. (Cairo U., 1964)
Khan, Viichiang, Knoxville, Tenn. (National Tiwan U., 1963)
Khouzam, Nagui N., Orlando (Cairo U., 1952)
Kiblinger, William G., Westlake Village, Calif. (U. of Texas, 1959)
Kieffer, William J., South Bend, Ind. (Iowa U., 1958)
Kilgore, Manley W., Decatur, Ga. (Emory U., 1969)
Kim, Kang H., Miami Beach (Yon-Sei U., 1966)
Kim, Yank J., Miami Beach (Yon-Sei U., 1966)
Kim, Zoo E., Jacksonville (Seoul National U., 1963)
Kincheloe, Robert L. Jr., Atlantic Beach (U. of Pittsburgh, 1967)
King, Earl F., Orlando (U. of Oregon, 1969)
King, Ronald L., Millington, Tenn. (Medical College of Virginia, 1966)
Kirpalani, Rhagwan U., Rochester, N.Y. (U. of Bombay, 1958)
Kiss, Karoly O., Tampa (Medical College of Georgia, 1967)
Klass, Joel V., Miami (U. of Miami, 1969)
Knaysi, George A., Bronx, N.Y. (State U. of New York-Upstate, 1965)
Kolson, Harry, Syosset, L.I., N.Y. (New York U., 1950)
Kopp, James E., Rochester, Minn. (West Virginia School of Medicine, 1963)
Kovacs, Joseph D. Jr., New Orleans, La. (Alabama Medical College, 1959)
Kredi, Elias, Miami (Havana U., 1950)
Krieger, Mitchell I., Eglin AFB (U. of Illinois, 1964)
Kress, Jacob H., Gainesville (Medical College of Virginia, 1936)
Krivit, Lawrence R., Monroe, N.Y. (Medical College of Virginia, 1959)
Kutell, Michael A., Houston, Texas (Jefferson Medical College, 1965)
Kyle, William A., Indianapolis, Ind. (Indiana U., 1969)

LaBarre, Gary C., Miami (Kansas U., 1962)
Lackey, John T., Villa Park, Ill. (Indiana U., 1964)
Lacsamana, Remigio G., Daytona Beach (U. of Santo Tomas, 1963)
Laifer, Franklyn, Columbus, Ohio (Chicago Medical School, 1965)
Laird, William P., Camp Lejeune, N.C. (U. of Pennsylvania, 1966)
Landry, Paul R., Jacksonville (St. Louis U., 1967)
Lapidario, Renato S., Cumberland, Md. (U. of Philippines, 1961)
Larsen, Eric, Fort Benning, Ga. (Case Western Reserve U., 1965)
Lawrence, Richard, Pensacola (Columbia U., 1940)
Layman, Paul R., Hamilton, Ohio (Medical College of Virginia, 1968)
Leal, Jorge J., Miami (Havana U., 1943)
Lechner, Benjamin L., Baltimore, Md. (New York U. 1967)
Lefkovits, Albert M., New York, N.Y. (New York Medical College, 1962)
Lefkowitz, Lawrence A., New York, N.Y. (State U. of New York-Downstate, 1964)
Lefkowitz, Louis H., Augusta, Ga. (New York Medical College, 1964)
LeFrock, Jack L., Boston, Mass. (U. of Amsterdam Holland, 1965)
Leininger, Peter A., Kensington, Md. (Indiana U., 1968)
Leslie, Charles L., Baton Rouge, La. (Marquette U., 1946)
Leslie, Stephen H., New York, N.Y. (New York U., 1942)
Lesnick, Gerson J., Bronx, N.Y. (Harvard U., 1937)
Lestage, Daniel B., Pensacola (Louisiana State U., 1963)
Levinson, Michael J., Winter Park (U. of Tennessee, 1968)
Levitt, Joseph, St. Louis, Mo. (Washington U., 1949)
Levy, Jacob, Flushing, Queens, N.Y. (National U. of Colombia, 1954)
Liebowitz, Solomon, Miami (New York U., 1957)
Lindquist, Timothy C., Winter Park (U. of Chicago, 1968)
Lipscomb, Larry R., Tampa (U. of Mississippi, 1969)
Lisan, Philip, Merion, Pa. (Hahnemann Medical College, 1951)
Liss, George, Rockville, Md. (George Washington U., 1958)
Liss, Nelson, Riverdale, N.Y. (State U. of New York-Downstate, 1968)
Livingston, Peter A., New York, N.Y. (Yale Medical School, 1968)
Llorens, Jacinta J., Macclenny (Havana U., 1945)
Loescher, Thomas M., Appleton, Wisc. (U. of Colorado, 1949)
Lofton, Joseph E., Andrews AFB, Md. (U. of Alabama, 1947)
London, Stanley L., St. Louis, Mo. (Washington U., 1949)
Lopez-Fernandez, Orlando, Miami (Havana U., 1943)
Lousteau, Jeffrey M., Mobile, Ala. (Louisiana State U., 1969)
Loutsch, Erica M. K., New York, N.Y. (U. of Buenos Aires, 1961)
Lowitt, Peter D., Miami (Albert Einstein Medical College, 1969)
Luca, Frank, Monmouth Beach, N.J. (State U. of New York-Downstate, 1933)
Luna, Manuel R., Chicago, Ill. (San Marcos U., 1965)

Machado, Gerardo, Flushing, N.Y. (Havana U., 1955)
Machado, Humberto G., Chattahoochee (Havana U., 1934)
Mainieri, Nunzio, Coral Gables (Havana U., 1953)
Maillard, Leslie W., Great Neck, N.Y. (New York Medical College, 1936)
Maletta, Rose H., Pompano Beach (U. of Naples, Italy, 1941)
Man, Mary M., Sharpes (Columbia U., 1931)
Mandelbaum, Donald M., North Haven, Conn. (New York U., 1965)
Mann, Charles H., Gainesville (West Virginia U., 1966)
Mann, Charles T., Niagara Falls, N.Y. (U. of Rochester, 1941)
Mann, John H., Orange Park (U. of Maryland, 1966)
Manning, Harry J., Meadville, Pa. (U. of Wisconsin, 1944)
Mansfield, George H., Silver Lake Village, Ohio (Western Reserve Medical School, 1943)
Mantel, Lewis, Pensacola (Albert Einstein Medical College, 1965)
Manzo, Napoleon E., Jacksonville (U. of Philippines, 1950)
Marcove, Ralph C., New York, N.Y. (Boston U., 1954)
Marcus, Stephen H., New Rochelle, N.Y. (New York Medical College, 1967)
Maresca, Massimo, Neptune, N.J. (U. of Naples, 1956)

Margolin, Ann C., University Heights, Ohio (U. of Michigan, 1965)
Margolin, Jerry A., University Heights, Ohio (U. of Nebraska, 1963)
Marks, Ansel R., Middletown, N.Y. (Washington U., 1953)
Marks, Virginius A., Midland, Mich. (Medical College of Virginia, 1951)
Markus, Norman J., Minot AFB, N.D. (Northwestern U., 1969)
Marmol, Eduardo G., Orlando (Havana U., 1951)
Martinez, Nestor, Miami (Havana U., 1960)
Mauceri, Joseph M., Key West (Tulane U., 1968)
Mayoz, Orestes P., Des Plaines, Ill. (Havana U., 1954)
McGibony, James T., Jacksonville (Emory U., 1935)
McGonigle, Michael M., Orange Park (U. of New Mexico, 1968)
McKenzie, Earl III, Atlanta, Ga. (Emory U., 1967)
McKinney, Reginald R., Hollywood (Meharry Medical College, 1969)
McLaurin, Lambert P., Tampa (U. of Florida, 1967)
Meia, Harley B. A., Bronx, N.Y. (National U. of Cordoba, 1963)
Mejia-Millan, Silvio, St. Petersburg (U. of Valle, 1961)
Mella, Dagoberto E., Miami (U. of Santo Domingo, 1957)
Melnick, Joseph L., Wynnewood, Pa. (Jefferson Medical College, 1946)
Mendell, Philip L., Byfield, Mass. (U. of Paris, 1965)
Mendoza, Alfredo G., Easton, Md. (Havana U., 1941)
Menendez-Lera, Pedro F., Miami (Havana U., 1948)
Mercer, Lloyd F. M., Dalton, Ga. (Yale U., 1969)
Merritt, Lawrence S., Treasure Island (U. of Oklahoma, 1961)
Messner, Jean T., Whitman, Mass. (Temple U., 1963)
Messner, Kenneth H., Whitman, Mass. (Temple U., 1963)
Meyer, Andrew F., Brooklyn, N.Y. (State U. of New York-Downstate, 1969)
Meyers, Bernard L., Troy, N.Y. (State U. of New York-Syracuse, 1957)
Mikhail, Samir F., St. Petersburg (Cairo U., 1949)
Milanes, Fernando J., Miami (U. of Granada, 1969)
Miles, Thomas V., Garden City, N.Y. (Long Island Medical College, 1945)
Miller, Israel, Brooklyn, N.Y. (State U. of New York-Downstate, 1929)
Miller, Richard H., Virginia Beach, Va. (U. of Florida, 1969)
Miller, Robert V., Pennsauken, N.J. (Jefferson Medical College, 1940)
Miller, Warren C., Keesler AFB, Miss. (U. of Texas, 1966)
Milner, Gilbert C. III, Gainesville (U. of Texas, 1965)
Minsal, Victor A., Macclenny (Havana U., 1929)
Hinsky, Arthur, Jamaica, N.Y. (George Washington Medical School, 1934)
Modrow, Peter A., Goldsboro, N.C. (U. of North Carolina, 1965)
Moinuddin, Mahmood, Cleveland, Ohio (Osmania U., 1959)
Monal, Nelida J., Miami (Buenos Aires Medical School, 1958)
Montalvo, Carlos, Milledgeville, Ga. (Havana U., 1941)
Moon, Youngsik, Cincinnati, Ohio (Yon-sei U., 1960)
Moore, Alfred L., Pompano Beach (Eclectic Medical College, 1935)
Moore, Clemmie E., Tampa (U. of Louisville, 1955)
Morales, Azorides R., Grosse Pointe Woods, Mich. (Madrid Medical School, 1958)
Morales, Miriam V., Grosse Pointe Woods, Mich. (Granada Medical School, 1958)
Morgan, John R., Gainesville (Vanderbilt U., 1966)
Morris, Len W., Gainesville (Washington U., 1967)
Morris, Stephen M., Tucson, Ariz. (Temple U., 1965)
Muino, Ruben, Miami (Havana U., 1947)

Narcis, Alberto A., Orlando (Havana U., 1960)
Nasser, Nezamoddin, Miami (Tehran U., 1963)
Nathan, Martin J., Miami Beach (U. of Pennsylvania, 1964)
Netzloff, Michael L., Gainesville (U. of Florida, 1969)
Nichols, Richard D., Ann Arbor, Mich. (U. of Michigan, 1961)
Nickse, Jose C., Miami (Havana U., 1943)
Niesen, Stephen M., Lewisburg, Pa. (Medical College of Virginia, 1968)
Nitzkin, Joel L., Miami (Wayne State U., 1966)
Noble, James P., Arlington, Va. (U. of Miami, 1968)
Northrop, Mead F., Gainesville (State U. of New York-Syracuse, 1962)
Northup, Harry M., Jacksonville (U. of Arkansas, 1968)
Norton, Frank B., Mineola, N.Y. (U. of Bologna, Italy, 1969)

Oakley, Richard S., Richmond, Va. (Medical College of Virginia, 1966)
Ocejo, Julian, Perry Point, Md. (Havana U., 1927)
Ogura, George I., Denver, Colo. (U. of Colorado, 1942)
Olson, Kenneth B., Loudonville, N.Y. (Harvard Medical School, 1933)
Orizondo, Herminio C., Orlando (Havana U., 1962)
Ornstein, Henry M., Richmond, Va. (U. of Geneva, 1966)
Ortiz-Carrillo, Salvador, Killeen, Texas (Granada Medical School, 1959)
Osterling, Dale L., Orange Park (U. of Illinois, 1966)
Otchin, Neil S., Rockville, Md. (Duke U., 1967)
Otero, Carlos A., Columbia, S. C. (Havana U., 1946)
Otero, Carlos A., Chicago, Ill. (U. of Cartagena, 1963)
Oxman, Robin N., Los Alamitos, Calif. (New York U. 1962)

Palatinus, Joseph, Tampa (U. of Florida, 1969)
Panish, Richard M., Milwaukee, Wisc. (U. of Illinois, 1966)
Paolillo, Richard D., Gulf Breeze (George Washington U., 1965)
Parker, Arthur E., Warrington (U. of Mississippi, 1965)
Parkhurst, Leonard W., Gladwyne, Pa. (Jefferson Medical College, 1936)
Parsons, Robert G., Gainesville (U. of Florida, 1969)
Pasarin, Antonio, Miami (Havana U., 1960)
Patuleia, Maria C., New York, N.Y. (U. of Lisbon, 1944)
Pauli, Francis J., Rockville, Md. (U. of Michigan, 1965)
Pausa, Justo P., Miami (Havana U., 1934)
Paz, Tomas, Passaic, N.J. (Havana U., 1959)
Pearse, Richard L., Bowling Green, Ohio (Case Western Reserve U., 1954)
Pehlivanian, Zachary, Washington, D. C. (Faculty Medicine of Beirut, 1959)
Pellizzari, Rinaldo G., Erie, Pa. (Modena U., 1954)
Pena, Constantino, Miami Beach (U. of Santiago de Compostela, 1967)
Pena, Ovidio, Miami (Havana U., 1960)
Pendergrass, John L., Hurlburt Fld. (U. of Mississippi, 1969)
Penha, Pedro D., New York, N.Y. (Sao Paulo U., 1961)
Pennington, Edward E., Tampa (Tulane U., 1963)
Perez, Osvaldo, DesPlaines, Ill. (Havana U., 1945)
Perez-Sainz, Andres R., Miami (Havana U., 1945)
Perry, Roger B., Columbia, S.C. (State U. of New York-Buffalo, 1968)
Petit, Paul E., Norfolk, Va. (Temple Medical School, 1967)
Pfeffer, Herbert G., New York, N.Y. (New York U. Medical School, 1966)
Pfister, Raymond L., Cincinnati, Ohio (U. of Cincinnati, 1948)
Phares, Richard E., St. Petersburg (U. of Mississippi, 1961)
Phillips, Elliot S., Houston, Texas (Tulane Medical School, 1934)
Piedra, Rolando, Chicago, Ill. (Havana U., 1952)
Pierard, Albert A., Brandon (U. of Kansas, 1954)
Pike, Benjamin F., Tampa (U. of Tennessee, 1965)
Pitisci, Gilbert J., Los Angeles, Calif. (Tulane Medical School, 1969)
Pizarro, Antonio R., Fort Lauderdale (U. of Philippines, 1963)
Pocock, Herman D. Jr., Prospect, Ky. (U. of Cincinnati, 1943)

Podesta, Antonio A., Los Angeles, Calif. (U. of Buenos Aires, 1947)
Pohlman, Glenn L., St. Paul, Minn. (U. of Minnesota, 1967)
Pollack, Michael A., Key West (Albert Einstein Medical College, 1968)
Porter, Robert A., Westport, Ind. (Indiana U., 1952)
Porto, Manuel A., Miami (Havana U., 1954)
Postman, Jeffrey D., Miami (New York U., 1963)
Potenza, Robert M. P., Cherry Point, N.C. (Creighton U., 1965)
Pratt, Richard C., Pensacola (Tufts U., 1967)
Presto, Andrew J. III, New York, N.Y. (George Washington U., 1967)
Pujols, Jose R., Miami (Havana U., 1960)
Purcell, Dent W., Gainesville (Medical College of Georgia, 1968)

Quattlebaum, Cecil L. Jr., Greenville, S.C. (Medical College of South Carolina, 1965)

Rackstein, Andrew D., Gainesville (Chicago Medical School, 1969)
Radvan-Ziemnowicz, Stanley A., Washington, D. C. (Jagellon U. Poland, 1952)
Rakofsky, Sanford, New York, N.Y. (U. of Bologna, 1961)
Ramirez, Raúl, Tampa (U. of Madrid, 1969)
Ramos, Manuel, Miami (San Marcos Major U., 1959)
Ramos, Orlando C., Baltimore, Md. (Havana U., 1946)
Ramos, Raul A., Macclenny (Havana U., 1959)
Randin, Francisco J., Western Springs, Ill. (Havana U., 1955)
Raney, Jacob L., Miami (Tulane Medical School, 1959)
Ravin, Mark B., Gainesville (New York U., 1959)
Reed, James W., San Francisco, Calif. (Howard U., 1963)
Regoli, Robert L., Shaw AFB, S.C. (U. of Ottawa, 1966)
Rehbein, Harold M., Casselberry (U. of Wisconsin, 1968)
Reshefsky, Bonnie L., Houston, Texas (U. of Virginia, 1967)
Reyes, Mario R., Orlando (Havana U., 1941)
Rice, William C., Gainesville (U. of Florida, 1969)
Riddle, Lindsay R., Pensacola (Jefferson Medical School, 1940)
Ridings, Gus R., Dallas, Texas (Vanderbilt U., 1950)
Rietman, Henry J., Evansville, Ind. (St. Louis U., 1952)
Risech, Heriberto H., Miami (U. of Madrid, 1965)
Ritterbusch, Dale L., Columbia, Mo. (U. of Missouri, 1969)
Ritz, Norton D., Brooklyn, N.Y. (U. of Minnesota, 1941)
Roberts, Joseph M., DeLand (Northwestern U., 1930)
Robinson, Charles H., Galveston, Texas (U. of Tennessee, 1951)
Robinson, Gerald N., Homestead AFB (Howard Medical School, 1969)
Roddy, Flor D., Miami (U. of Philippines, 1947)
Rodriguez, Agustin R., Middletown, Ohio (Havana U., 1952)
Rodriguez, Angel A., Miami (Havana U., 1934)
Rodriguez, Ignacio A., Chicago, Ill. (Havana U., 1947)
Rojas, Mario G., Augusta, Ga. (U. Nacional, 1958)
Rojas, Miguel C., Tampa (Havana U., 1961)
Rollie, Orris O., New Brighton, Minn. (U. of Illinois, 1946)
Rooney, Sharon M., New York, N.Y. (New York Medical College, 1968)
Rosenbaum, Stephen D., Fort Rucker, Ala. (U. of Maryland, 1968)
Rosenthal, Norman S., Jamaica Estates, N.Y. (New York Medical College, 1967)
Rosewater, Stanley E., Myrtle Beach AFB., S. C. (Ohio State U., 1965)
Ross, Milton S., Mt. Kisco, N.Y. (Johns Hopkins U., 1940)
Ross, Robert W., Fort Walton Beach (U. of Arkansas, 1967)
Roth, Joshua S., Floral Park, N.Y. (State U. of New York-Downstate, 1967)
Roth, Robert A., Gainesville (Case Western Reserve, 1968)
Roth, Sally S., Gainesville (Case Western Reserve, 1968)
Rottner, Mark H., Waco, Texas (New York Medical College, 1941)
Ruano, Vicente M., Baltimore, Md. (Havana U., 1941)
Ruas, Ernesto, Orlando (Havana U., 1952)
Ruas, Sarah B., Orlando (Havana U., 1952)
Rubenberg, Martin, Brooklyn, N.Y. (Washington U. 1960)
Rubin, Arthur S., Panama City (State U. of New York Downstate, 1965)
Rubin, Peter E., Gainesville (U. of Rochester, 1967)
Rudnick, Jeffrey P., Watertown, Mass. (Albany Medical College, 1966)
Rush, Martin R., New York, N.Y. (Hahnemann Medical College, 1941)
Russell, Lloyd W., Mobile, Ala. (U. of Tennessee, 1955)
Rust, Garry F., New Orleans, La. (Creighton U., 1964)

Saad, Maher Y., Brookville, L.I., N.Y. (Cairo U., 1961)
Sable, Richard S., Newton, Mass. (Tufts U., 1966)
Sablosky, Lester, Norristown, Pa. (Hahnemann Medical College, 1950)
Saenz, Pedro E., Bridgeville, Pa. (Havana U., 1953)
St. Petery, Julia C. R., Gainesville (U. of Florida, 1969)
St. Petery, Louis B. Jr., Gainesville (U. of Florida, 1969)
Salazar, Jorge, Miami (Havana U., 1949)
Salazar, Jose I., Plant City (U. of Javeriana, 1954)
Salinas, Orlando F., Virginia Beach, Va. (U. of St. Simon 1957)
San Pedro, Jorge J., Man, W. Va. (Havana U., 1954)
Santiago, Ramon, Tampa (Havana U., 1960)
Santiesteban, Hector D., Miami (Havana U., 1951)
Santoni, Ernesto, Fort Benning, Ga. (U. of Santo Domingo, 1959)
Sapoznikoff, John B., Fort Knox, Ky. (Hahnemann Medical College, 1965)
Sariol, Oscar, Lauderhill (Havana U., 1951)
Sauls, Larry J., Albany, Ga. (U. of Mississippi, 1967)
Schaff, Hartzell V., McAlester, Okla. (U. of Oklahoma, 1942)
Scharf, Victor, University Heights, Ohio (Western Reserve U., 1954)
Schechter, Lawrence S., New York, N.Y. (New York Medical College, 1966)
Scheer, Henry M., West Palm Beach (New York U., 1915)
Schlessel, Theodore E., Hamden, Conn. (Rochester U., 1955)
Schneider, Allan, Brooklyn, N.Y. (Bologna Medical School, 1966)
Schneider, Thomas J., Cleveland Heights, Ohio (Jefferson Medical College, 1965)
Schreiber, Maurice M., Brooklyn, N.Y. (George Washington U., 1931)
Schulman, Lawrence, Riverdale, N.Y. (State U. of New York-Downstate, 1963)
Schultz, Robert B., Baltimore, Md. (New York U., 1962)
Schuster, Samuel R., Wellesley, Mass. (Western Reserve U., 1950)
Schutz, James S., New York, N.Y. (Harvard U., 1969)
Schuyler, Robert M., Milwaukee, Wisc. (U. of Wisconsin, 1946)
Scialli, Vincent A., Passaic, N.J. (Hahnemann Medical College, 1939)
Scott, C. Paul, Baltimore, Md. (Case Western Reserve U., 1968)
Scruggs, Thomas M., Birmingham, Ala. (Johns Hopkins U., 1957)
Seager, Orin A., Ventura, Calif. (U. of Pennsylvania, 1968)
Seder, Harold B., Columbia, S.C. (U. of Pittsburgh, 1965)
Seeley, Ronald L., Key Biscayne (U. of Nebraska, 1966)
Segel, Nathan, Miami Beach (Witwatersrand U., 1951)
Seidenberg, Bernard, Bronx, N.Y. (New York U., 1947)
Seife, Irwin, Binghamton, N.Y. (Bowman Gray Medical School, 1951)
Seligman, Fred, Miami (McGill Medical School, 1963)
Seltzer, Murray H., Philadelphia, Pa. (U. of Pennsylvania, 1965)
Serrano-Milanes, Luis F., Hato Rey, Puerto Rico (Havana U., 1952)

Serrao, Carlos, Coral Gables (National U. of Cordoba, 1961)
Shaw, Maurice H., Tampa (Witwatersrand U., 1959)
Shear, Robert H., Birmingham, Ala. (Medical College of Georgia, 1964)
Sheffield, William E. Jr., Orlando (U. of Tennessee, 1966)
Sheridan, Howard M., Orlando (Tulane Medical School, 1969)
Sherman, Fred P., Leonia, N.J. (Jefferson Medical College, 1969)
Sherman, Michael L., Baltimore, Md. (U. of Maryland, 1967)
Shirkey, Harry C., Honolulu, Hawaii (U. of Cincinnati, 1945)
Shulman, Howard, Newlett, N.Y. (Chicago Medical School, 1960)
Shulman, Julius, El Reno, Okla. (State U. of New York-Downstate, 1969)
Shulman, Stanford T., Gainesville (U. of Chicago, 1967)
Siano, Juan C., Jacksonville (U. of Buenos Aires, 1952)
Siegler, Howard M., Houston, Texas (New York Medical College, 1965)
Sievert, Rodrigo R., Jacksonville (U. of Philippines, 1964)
Silverman, Frederick W., Great Neck, N.Y. (New York Medical College, 1969)
Simon, Lawrence F., Tyndall AFB (State U. of New York-Upstate, 1965)
Simon, Sylvan W., Miami Beach (Rush Medical College, 1929)
Singerman, Leonard J., Miami (Chicago Medical School, 1950)
Singletary, Robert W., Nashville, Tenn. (Meharry Medical College, 1967)
Sippe, Joseph L., Rochester, Minn. (Medical College of Virginia, 1968)
Sison, Arturo T., Daytona Beach (U. of Santo Tomas, 1961)
Sisson, John M., Thomasville, Ga. (Wayne State U., 1937)
Slabey, John L., Jupiter Inlet Colony (New York U., 1934)
Slepian, Jacob Z., Wheaton, Md. (U. of Bologna, 1968)
Smith, Curran J., Gainesville (U. of Missouri, 1966)
Smith, Don N., Redlands, Calif. (Tulane U., 1959)
Smith, Earl A., Milton (Temple U., 1967)
Smith, James A., Pensacola (U. of California, 1968)
Smith, Robert B., Yonkers, N.Y. (State U. of New York-Downstate, 1965)
Smyth, Joseph P., Winter Park (Creighton U., 1964)
Snelling, John M. Jr., Charlotte, N.C. (Medical College of Georgia, 1943)
So, Antero G., Miami (U. of Sto Tomas, 1956)
Sohn, Yung J., Miami (State U. of New York-Downstate, 1958)
Sokmensuer, Adil, Lantana (U. of Istanbul, 1951)
Solar, Angel O., St. Petersburg (Havana U., 1943)
Solik, Alex E., Flint, Mich. (U. of Illinois, 1959)
Sollee, Artbur N., Memphis, Tenn. (U. of Tennessee, 1968)
Sonkin, Eli D., North Miami Beach (U. of Kentucky, 1969)
Soskis, David A., Rochester, N.Y. (Yale U., 1968)
Soss, Sheldon B., Biloxi, Miss. (Jefferson Medical College, 1964)
Spector, Steven D., Orlando (U. of Louvain, 1970)
Spillert, Leonard J., Jacksonville (U. of Louvain, 1970)
Springer, Philip K., Gainesville (U. of Mississippi, 1960)
Spunt, Edward T., Delray Beach (New York U., 1930)
Stebbins, George G., Madison, Wisc. (U. of Wisconsin, 1955)
Stern, James M., Miami (Jefferson Medical College, 1958)
Stewart, James G. Jr., Miami (U. of Pennsylvania, 1965)
Stith, James L., Gautier, Miss. (George Washington U., 1956)
Stolzer, William A., Columbus, Ga. (Georgetown U., 1968)
Stone, Donald L., Mobile, Ala. (U. of Arkansas, 1961)
Stracner, Bobby D., Clearwater (U. of Arkansas, 1966)
Strickland, Hilliard A., Mt. Pleasant, S.C. (Medical U. of South Carolina, 1968)
Stringfield, James T. III, Pensacola (U. of Alabama, 1969)
Sturich, Jose R., Long Beach, Calif. (U. of Nacional de Cordoba, 1953)
Suarez, Juan B., Elmhurst, N.Y. (U. of Madrid, 1963)
Sulkin, Michael D., Richmond, Va. (Boston U., 1966)
Sullivan, James S., Winter Park (U. of Alabama, 1968)
Sullivan, Thomas D., Riverside, Ill. (Loyola U., 1969)
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Sutton, Diane J., San Francisco, Calif. (U. of Florida, 1969)
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Swaye, Paul S., North Miami (Queen's U., 1965)
Taft, Steven D., Flushing, N.Y. (Albert Einstein Medical College, 1968)
Tamer, Mohammad A., Coral Gables (Damascus U., 1962)
Tara, Charles S., Winston-Salem, N.C. (U. of Vermont, 1969)
Tarnoff, Stephen J., Bronx, N.Y. (Chicago Medical School, 1966)
Taslimi, Kamal A., Wyncote, Pa. (Baghdad U., 1966)
Tasoff, Alan E., Fort Walton Beach (U. of Cbicago, 1968)
Tate, Cecil E., Jackson, Mich. (U. of Illinois, 1932)
Tavana, Manoucber, Erie, Pa. (U. of Geneva, 1957)
Taylor, Hoyt C., Meriden, Conn. (Cornell U., 1938)
Tchertkoff, Victor, Tenafly, N.J. (New York Medical College, 1943)
Teachey, William S., Gainesville (U. of North Carolina, 1968)
Teegen, John T., Indian Harbour Beach (U. of Iowa, 1960)
Tehrani, Massoud B., Malyern, Pa. (U. of Tehran, 1956)
Temes, Gerald D., Gainesville (State U. of New York-Upstate, 1963)
Ten Have, Ralph, Panama City (U. of Michigan, 1955)
Tennant, Harry R., Columbus, Ga. (U. of Virginia, 1965)
Tennant, Maurice M., Palos Heights, Ill. (U. of Illinois, 1943)
Thinnes, John L. Jr., Cincinnati, Ohio (U. of Cincinnati, 1953)
Thomas, Daniel J., Pensacola (Jefferson Medical College, 1963)
Thomas, Henry F. Jr., Gainesville (U. of North Carolina, 1966)
Thomas, Wallace A., Sumter, S.C. (U. of Arkansas, 1968)
Thomason, Henry C. Jr., Jacksonville (U. of North Carolina, 1967)
Tborn, John E., Albuquerque, N. Mexico (Medical College of Virginia, 1968)
Tipping, James S., Pittsburgh, Pa. (U. of Pittsburgh, 1941)
Toranto, I. Richard, Miami Beach (Northwestern U., 1969)
Trettel, Raymond J., Key West (Loyola U., 1953)
Triana, Manuel, Oak Park, Ill. (Havana U., 1945)
Trodella, George P., Medford, Mass. (Tufts U., 1943)
Troost, Bradley T., Miami Shores (Harvard Medical School, 1963)
Tuazon, Jaime G., Gainesville (U. of Santo Tomas, 1964)
Tullis, Charles S. Jr., Dunnellon (U. of Florida, 1969)
Urrutia, Ruben O., Rio Piedras, Puerto Rico (U. of Salamanca, 1967)
Vaccaro, Michael, Malvern, Pa. (Jefferson Medical College, 1934)
Vaclavek, Caridad L., Miami (Cebu Institute of Technology, 1962)
Valdes, Carlos, Hollywood (Havana U., 1957)
Valdes, Amauri, Roseville, Mich. (Madrid U., 1965)
Valle, Manuel, Fort Lauderdale (Havana U., 1955)
Vallejo, Jorge A., Hialeah (Havana U., 1960)
Vanderwerf, Ben A., Miami Beach (U. of Nijmegen, Netherlands, 1959)
Vazouez, Antonio, Hollywood (U. of Madrid, 1966)
Vazouez, Heriberto, Williamsburg, Va. (Havana U., 1953)
Velasquez, Augusto C., Jacksonville (U. of Sto Tomas, 1958)

Velez-Velasquez, Margarita, Jacksonville (U. of Sto Tomas, 1964)
Verzosa, Vicente S., Beckley, W. Va. (Far Eastern U., 1961)
Vesser, Hubert H., Rochester, Minn. (U. of Tennessee, 1955)
Vidal, Alberto, Chicago, Ill. (Montevideo Medical School, 1962)
Vieira, Euripedes T., Lakeland (Triangulo Mineiro Medical School, 1960)
Villaflor, Rady I., Bloomfield Hills, Mich. (U. of Philippines, 1959)
Villalobos, Carlos E., Chicago, Ill. (U. of San Marcos, 1963)
Villalon, Ivan O., Yonkers, N.Y. (Havana U., 1948)
Vilmos, Paul, Yonkers, N.Y. (Budapest Medical School, 1954)
Violin, George A., Boston, Mass. (Columbia U., 1967)
Vitas, Ovidio E., Rochester, Minn. (National U. of Cordoba, 1963)
Vlachos, George, Fort Lee, N.J. (Lausanne Medical School, 1962)

Wald, Harlan I., New York, N.Y. (Duke U., 1968)
Wallar, Durrand E., Greenville, S.C. (Queen's U., 1951)
Warner, Roger S., APO New York (Emory U., 1967)
Waskow, Walter H., Yardley, Pa. (Hahnemann Medical School, 1956)
Watson, Robert T., Gainesville (U. of Florida, 1969)
Weaver, Roy A., Chapel Hill, N.C. (U. of North Carolina, 1963)
Wechsler, Michael H., Eastchester, N.Y. (St. Louis U., 1965)
Weeks, John W. Sr., Gainesville (Duke U., 1965)
Weinshelbaum, Arlene, Gainesville (U. of Chicago, 1968)
Weinshelbaum, Edward, Gainesville (U. of Chicago, 1960)
Weinstein, Leonard S., Mobile, Ala. (U. of Pennsylvania, 1969)
Weintraub, Harold P., Boston, Mass. (McGill U., 1969)
Weissman, Bruce W., San Antonio, Texas (Jefferson Medical College, 1965)
Wenzel, Margaret S., Stamford, Conn. (Yale U., 1958)
Wershba, Martin S., Willingboro, N.J. (Georgetown U., 1969)
West, Charles S. Jr., Orlando (Emory U., 1969)
Westland, Margaret M. H., Gulf Breeze (U. of Kentuck 1969)
Whaley, Morgan N., Orlando (Medical College of Georg 1969)
White, Lowell C. Jr., Gainesville (U. of Washingto 1953)
Weiner, Harry J., Revere, Mass. (U. of Michigan, 193
Wigoda, Luis, North Miami Beach (U. Autonoma Mexico, 1965)
Wilcox, Clyde W. Jr., Tampa (U. of Nebraska, 1968)
Wilson, Ralph S., Charlotte, N.C. (Indiana U., 1968)
Wind, Chiel A., Gainesville (Hadassah U.-Israel, 1962)
Wine, Harvey G., Miami (U. of Toronto, 1964)
Winokur, Solomon, New Orleans, La. (Tulane U., 1933)
Wolf, David J., New York, N.Y. (U. of Saskatchewa 1962)
Wolstein, David G., Howard Beach, N.Y. (Chicago Mec cal School, 1963)
Wright, Joseph W. III, Tampa (U. of Michigan, 1969)
Wrigley, Benham R., Peoria, Ill. (Albany Medical Colleg 1947)
Wunderlich, Howard O., Port Jefferson, N.Y. (Long Islar College of Medicine, 1943)
Wyatt, Betty S., Chicago, Ill. (Medical College of Virgini 1966)
Wynne, James W., Gainesville (Cornell U., 1969)

Yager, Alfred, Englewood Cliffs, N.J. (U. of Virgini 1947)
Yager, Robert L., West New York, N.J. (New York U 1956)
Yankow, Sanford L., Miami (U. of Miami, 1969)
Yeh, Billy K., Miami Beach (National Taiwan U., 1961

Zavelson, Thomas M., Gainesville (Duke U., 1969)
Zellner, Jason M., New York, N.Y. (Chicago Medic School, 1969)
Ziefert, William C., Maplewood, N.J. (State U. of Ne York-Downstate, 1962)
Zighelboim, Abraham, Miami Shores, (U. of Del Zuli 1956)
Zomorodian, Ali A., Lake City (U. of Teheran, 1956)
Zornosa, Rafael, Hialeah (Colombian National U., 1955

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MEETINGS

Approved by FMA Committee on Continuing Education

SEPTEMBER

20-25 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

OCTOBER

8- 9 Otolaryngology for the Family Physician, Sheraton-Four Ambassadors Hotel, Miami. For information: Fredric W. Pullen, M.D., P.O. Box 875, Biscayne Annex, Miami 33152.

11-15 Diagnosis of Cardiac Arrhythmias, Wolfson Auditorium, Mt. Sinai Hospital, Miami Beach. For information: Philip Samet, M.D., 4300 Alton Road, Miami Beach 33140.

NOVEMBER

19-20 Tenth Annual Physicians' Seminar on Respiratory Diseases and Workshop for Allied Health, Perdido Bay Inn & Golf Club, Pensacola. For information: Jay D. Williams Jr., M.D., Box 8127, Jacksonville 32211.

29-Dec. 4 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

DECEMBER

7-10 Clinical Nephrology and Heart Disease Seminar, Eden Roc Hotel, Miami Beach. For information: Mrs. Gwen Hendel, Mt. Sinai Hospital, 4300 Alton Rd., Miami Beach 33140.

13-18 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

Florida State Board of Medical Examiners:
January 16-18, 1972, Tampa

For information: Mrs. Marjoriann Keebler, Assistant Director, Florida State Board of Medical Examiners, 2717 E. Oakland Pk. Blvd., Fort Lauderdale, Fla. 33306.

National and Regional Meetings Held in Florida

OCTOBER

4- 7 American Academy of Family Physicians, Miami Beach. Exec. Dir.: Mr. Mac F. Cahal, JD, Volker Blvd. at Brookside, Kansas City, Mo. 64112.

12-16 Congress of Neurological Surgeons, Americana Hotel, Bal Harbour. Sec.: Bernard S. Patrick, M.D., University Medical Center, 2500 N. State St., Jackson, Miss. 39216.

31-Nov. 3 Academy of Psychosomatic Medicine, 18th Annual Meeting, Colony Beach Club, Sarasota. Exec. Dir.: Adam J. Krakowski, M.D., 202A Cornelia St., Plattsburgh, New York 12901.

NOVEMBER

1- 4 Southern Medical Association, Miami Beach. Exec. Dir.: Mr. Robert F. Butts, 2601 Highland Ave., Birmingham, Ala. 35205.

2 George Papanicolaou Memorial Seminar in Gynecologic Pathology, Fontainebleau Hotel, Miami Beach. Dir.: George Ioannides, M.D., 1830 S.W. 99th Ave., Miami 33165.

3- 7 Florida Chapter of American Academy of Pediatrics and Florida Pediatric Society Annual Meeting, Curacao Hilton, Curacao, Netherlands, W.I. John C. Moore, M.D., 82 Lake Morton Dr., Lakeland 33801.

4- 6 Southern Thoracic Surgical Association, Tampa. Sec.-Treas.: James W. Brooks, M.D., 1200 E. Broad St., Richmond, Va. 23219.

JANUARY

17-19 American College of Surgeons, Sectional Meeting. Sheraton-Four Ambassadors Hotel, Miami. Info. Communications Division, 55 E. Erie St., Chicago 60611.

APRIL

18-20 American Academy of Facial Plastic and Reconstructive Surgery, Hollywood Beach Hotel, Hollywood Beach. Sec.: Carl N. Patterson, M.D., 1110 W. Main St., Durham, North Carolina 27701.

18-19 American Broncho-Esophagological Association, Hollywood Beach Hotel, Hollywood. Walter H. Maloney, M.D., 2065 Adelbert Rd., Cleveland 44106.

Classified Ads

physicians wanted

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GP WANTED for group practice in Central Florida. Florida license required. Immediate opening. Write C-506, P.O. Box 2411, Jacksonville, Florida 32203.

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INTERNIST: Board certified or qualified, internal medicine, to join four other internists. Salary first year—percentage and partnership to follow. Write or call: Pompano Medical Group, 2480 N.E. 23rd St., Pompano Beach, Florida 33062. Phone: (305) 942-0100.

RADIOLOGIST WANTED: Must be board certified, for 55-bed accredited community hospital, in expansion to 100 beds, Brooksville, Florida. Please contact Dr. J. C. Ajac, Radiologist at (904) 796-3507 or (904) 796-9636.

OPPORTUNITY FOR INTERNIST: Board certified or eligible, interested in cardiology. Town 11,000, service area 40,000 in south Alabama. Modern 86-bed (JCAH) general hospital with 8-bed combination intensive and coronary care unit under construction. Seven G.P.s, certified surgeon, radiologist, excellent school system. Contact B. J. Griffin, Adm., D. W. McMillan Memorial Hospital, Brewton, Ala. 36426.

PSYCHIATRIST WANTED as associate. Florida license. Board certified or eligible. General psychiatry and psychotherapy. Emphasis on professional competence and service to medical colleagues. This is a family-oriented practice (yours and the patients), eclectic, conservative. Write: Norbert W. Skaja, M.D., 4800 Northeast 20th Terrace, Fort Lauderdale, Florida 33308.

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INTERNIST: Clinical cardiology subspecialty preferred for association in new office. Outstanding opportunity for eager individual. Terms open. Excellent hospital facilities. Irwin Leider, M.D., 1012 Volusia Avenue, Daytona Beach, Florida 32014.

OB-GYN ASSOCIATE WANTED: Located in Titusville near Cape Kennedy area. Excellent living and working opportunities for board certified or eligible Ob-Gyn. Write Samuel Barr, M.D., 500 N. Washington Ave., Titusville, Florida 32780. Phone (305) 267-5928.

WANTED: General surgeon, thoracic and vascular to associate with another surgeon doing the same practice in Orlando, Florida. Write C-997, P.O. Box 2411, Jacksonville, Florida 32203.

GENERAL SURGEON, UROLOGIST, INTERNIST wanted to join a multi-specialist group, specialist-oriented. Excellent facilities, fee for service basis. Financial arrangements open. All the above specialties are represented. Contact Dr. Tim N. Howell, Gessler Clinic, Winter Haven, Florida 33880.

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Miscellaneous

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30 PHYSICIAN multispecialty group located Florida Gulf Coast must add internist, general practitioner, orthopedist, anesthesiologist, urologist, and an ENT physician. Ground broken to add 110 beds to present 202 beds. Ground soon to be broken on large clinic addition. Long range plans to 650 beds and 75 physician clinic. No investment required. Progressive, rapidly growing community with abundance of recreation and cultural opportunities. Contact D. M. Schroder, Administrator, Mease Hospital and Clinic, Dunedin, Florida 33528.

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STAFF PHYSICIAN: State facility for mentally retarded. Beginning salary depending on qualifications. Reply to include brief summary of professional experience. Send to W. B. Barrow, M.D., Medical Director, P.O. Box 2369, Ft. Myers, Florida 33902.

SURGICAL RESIDENCY: One immediate opening; two openings 1-1-72; in approved program providing one year of general surgery in preparation for continued training in several of the surgical subspecialties. 700-bed modern general hospital located Fort Lauderdale, Forida. Annual admissions to surgical service 8,300, daily census 167. Stipend $8,403, uniforms and laundry, meals, hospitalization, life insurance and paid vacation. For additional information write: Director of Medical Education, Broward General Medical Center, Fort Lauderdale, Florida 33316.

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PART TIME PHYSICIAN NEEDED: For nonprofit organization in Dade County. Opportunity for young physician to supplement his income. Position requires approximately five hours work per week. Write C-508, P.O. Box 2411, Jacksonville, Florida 32203.

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FOR SALE: Five room, red brick, medical office building situated on large, landscaped lot in Jacksonville. Office fully equipped. Good location on main thoroughfare in well populated area. Ample parking facilities. For further information, telephone (904) 389-0552.

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anxiety: a time bomb

Unless "defused," anxiety may build up to an intensity that can overwhelm the patient's inner defenses. Also, in one weakened by chronic illness or surgery, excessive anxiety may provoke or aggravate symptoms and interfere with recovery.

The antianxiety action of Librium (chlordiazepoxide HCl)—used adjunctively or alone—has demonstrated clinical usefulness in many fields of medical practice where anxiety complicates the patient's condition.

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Librium®
(chlordiazepoxide HCl) 5-mg, 10-mg, 25-mg capsules up to 100 mg daily for severe anxiety

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Indicated when anxiety, tension and apprehension are significant components of the clinical profile.

Contraindications: Patients with known hypersensitivity to the drug.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. As with all CNS-acting drugs, caution patients against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving). Though physical and psychological dependence have rarely been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage; withdrawal symptoms (including convulsions), following discontinuation of the drug and similar to those seen with barbiturates, have been reported. Use of any drug in pregnancy, lactation, or in women of childbearing age requires that its potential benefits be weighed against its possible hazards.

Precautions: In the elderly and debilitated, and in children over six, limit to smallest effective dosage (initially 10 mg or less per day) to preclude ataxia or oversedation, increasing gradually as needed and tolerated. Not recommended in children under six. Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider individual pharmacologic effects, particularly in use of potentiating drugs such as MAO inhibitors and phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Pa
excitement, stimu
have been report
and hyperactive
ploy usual prec
anxiety states w

ing depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation have been reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship has not been established clinically.

Adverse Reactions: Drowsiness, ataxia and confusion may occur, especially in the elderly and debilitated. These are reversible in most instances by dosage adjustment, but are also occasionally observed at the lower dosage ranges. In a few instances, syncope has been reported. Also encountered are isolated instances of skin eruptions, edema, libido, menstrual irregularities, nausea and constipation, extrapyramidal symptoms, increased and decreased libido—all infrequent and generally controlled with dosage reduction; changes in EEG patterns (low-voltage fast activity) may appear during and after treatment; blood dyscrasias (including agranulocytosis), jaundice and hepatic dysfunction have been reported occasionally, making periodic blood counts and liver function tests ad

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THE JOURNAL OF THE Florida Medical Association

OCTOBER, 1971 • VOLUME 58 • NUMBER 10

Patients fell asleep quick

Dalmane (flurazepam HCl) 30 mg reduced awake time—both before and after falling asleep - by fifty percent of pretreatment values in patients with insomnia.[1,2]

Two sleep laboratory studies recently confirmed findings of earlier studies of this type, namely, that Dalmane 30 mg was effective in patients who had trouble falling asleep, staying asleep or both. One 30-mg capsule of Dalmane usually induced sleep within 22 minutes, decreased the number of awakenings and the wake time after the onset of sleep, and provided 7 to 8 hours of sleep without need to repeat dosage during the night.

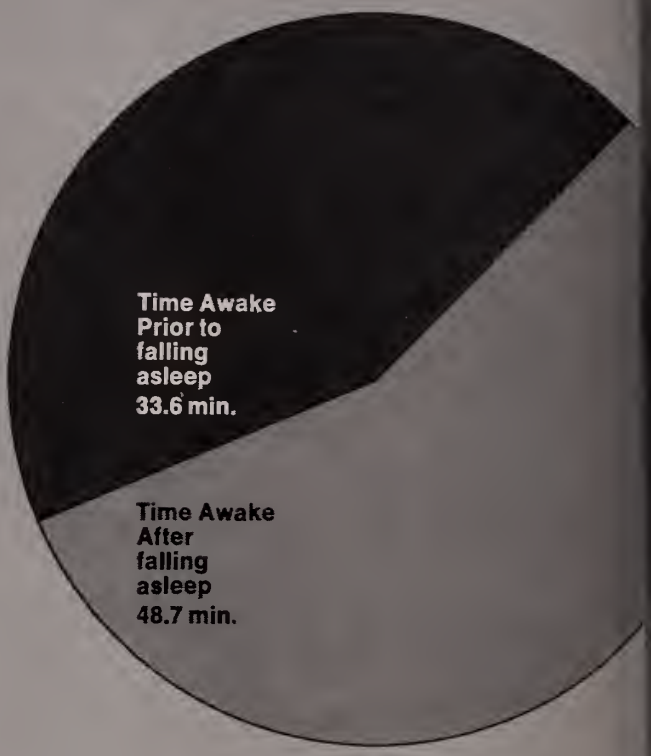
These studies utilized identical protocols and included eight insomniac patients. Sleep laboratory measurements in a limited number of patients are derived from all-night electro-encephalographic, electro-oculographic and electromyographic tracings. Unlike traditional methods of evaluation, they are quantitative, reproducible and projectable to large numbers of subjects.

Results shown represent average values in all subjects for the three consecutive nights of placebo administration prior to Dalmane therapy and the seven consecutive nights on Dalmane 30 mg.

Dalmane is also relatively safe, as reported in clinical studies. Instances of morning "hang-over" have been relatively infrequent; paradoxical reactions (excitement) and hypotension have been rare. Dizziness, drowsiness, lightheadedness and the like were the side effects noted most frequently, particularly in the elderly or debilitated. (An initial dose of Dalmane 15 mg should be prescribed for these patients.)

References: 1. Frost, J. D., Jr.: "A System for Automatically Analyzing Sleep," Scientific Exhibit presented at Clinical Convention, A.M.A., Boston, Nov. 29-Dec. 2, 1970, and Aerospace M.A., Houston, April 26-29, 1971.
2. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley, N.J.

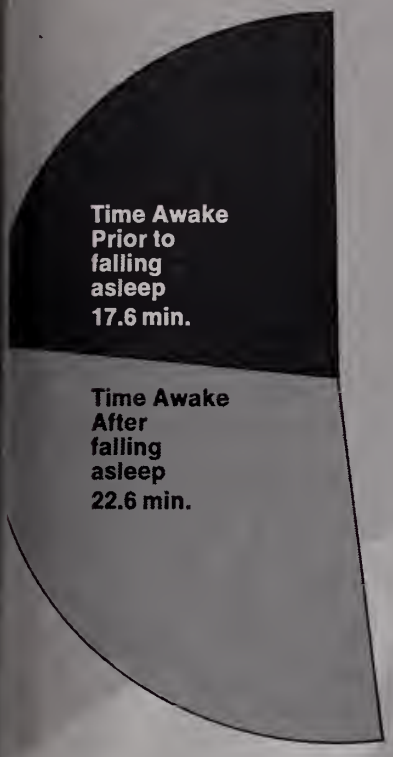
Before Dalmane (flurazepam HCl)



Measurements of sleep in the sleep laboratory are obtained with electroencephalographic, electro-oculographic and electromyographic recordings.

nd slept through the night

lmane
urazepam HCl)



sleep laboratory measurements in cited studies

er	Before Dalmane	On Dalmane
uired to fall asleep	33.6 min.	17.6 min.
e after onset of sleep	48.7 min.	22.6 min.
of wakeful periods after of sleep	12.2	8.4
ep time	420.0 min.	447.5 min.
ep percent	88.6	94.5

Before prescribing Dalmane (flurazepam HCl), please consult Complete Product Information, a summary of which follows:

Indications: Effective in all types of insomnia characterized by difficulty in falling asleep, frequent nocturnal awakenings and/or early morning awakening; in patients with recurring insomnia or poor sleeping habits; and in acute or chronic medical situations requiring restful sleep. Since insomnia is often transient and intermittent, prolonged administration is generally not necessary or recommended.

Contraindications: Known hypersensitivity to flurazepam HCl.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed, or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

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Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, New Jersey 07110

ical effectiveness as
ven in the sleep laboratory

Dalmane®
urazepam HCl)

0-mg capsule h.s.—usual adult dosage.
5-mg capsule h.s.—initial dosage for
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Who's afraid of the big bad enema?

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OCTOBER COVER — An interesting view of Orleans Street in New Orleans by Richard Hoffman. Copyright permission granted by Mr. A. G. Clark of The Bourbon Gallery, New Orleans. (See page 63 for details).

President's Page



The Law and the "Sick Doctor"

Because there apparently is considerable misunderstanding of the Florida "Sick Doctor Statute" which was passed by the 1969 Florida Legislature, I am devoting this month's page to a brief discussion of this new legal tool. When the Florida Legislature overhauled the Medical Practice Act it passed a law which was intended to protect the public against the incompetent or unqualified practice of medicine. We could call it "The Incompetent Doctor Statute," but from experience, through the State Board of Medical Examiners, we know that most physicians become incompetent or unqualified through illness or drug abuse or addiction.

Under this statute, the inability of a physician to practice medicine with reasonable skill and safety to his patients gives the Board grounds for jurisdiction. Florida has no greater or lesser proportion of physicians who are unfit to practice than other states, but our older laws offered the public little protection against that small fraction of physicians who are in the "unfit" category. The new law establishes an entirely new standard and method for disciplinary action. It is the inability of a physician to practice medicine with reasonable skill and safety rather than the commission of some act based upon "fault" which forms the basis of protecting the public. This inability by definition can arise through organic illness, mental or emotional disorders, deterioration through the aging process or loss of motor skills. The inability can also arise from excessive use or abuse of drugs, narcotics, chemicals or similar types of materials.

Under the "Sick Doctor Statute," every physician who uses his license to practice or who registers with the Board in effect consents to subject himself to such mental or physical examination, provided a probable cause is shown. If this be the case, the physician is required to submit to a diagnostic mental and physical examination. The results of this examination, as well as the testimony of the examining physician, can be introduced at the administrative trial of the "sick doctor."

Thus, the legal responsibility for controlling the ranks of the profession is placed squarely on the shoulders of the Board rather than on the courts. The competence of the doctor to practice medicine is tried before a panel of physicians, and the determination of his right to continue to practice medicine rests largely upon the testimony of Board-appointed physicians.

As assurance that the doctor under investigation will submit to the diagnostic examinations, provision is made for entering a default judgment against him if necessary. Of course, allowance is made in the case of physicians who fail, through circumstances beyond their control, to present themselves for evaluation. This points out that the practice of medicine is a privilege, not a right.
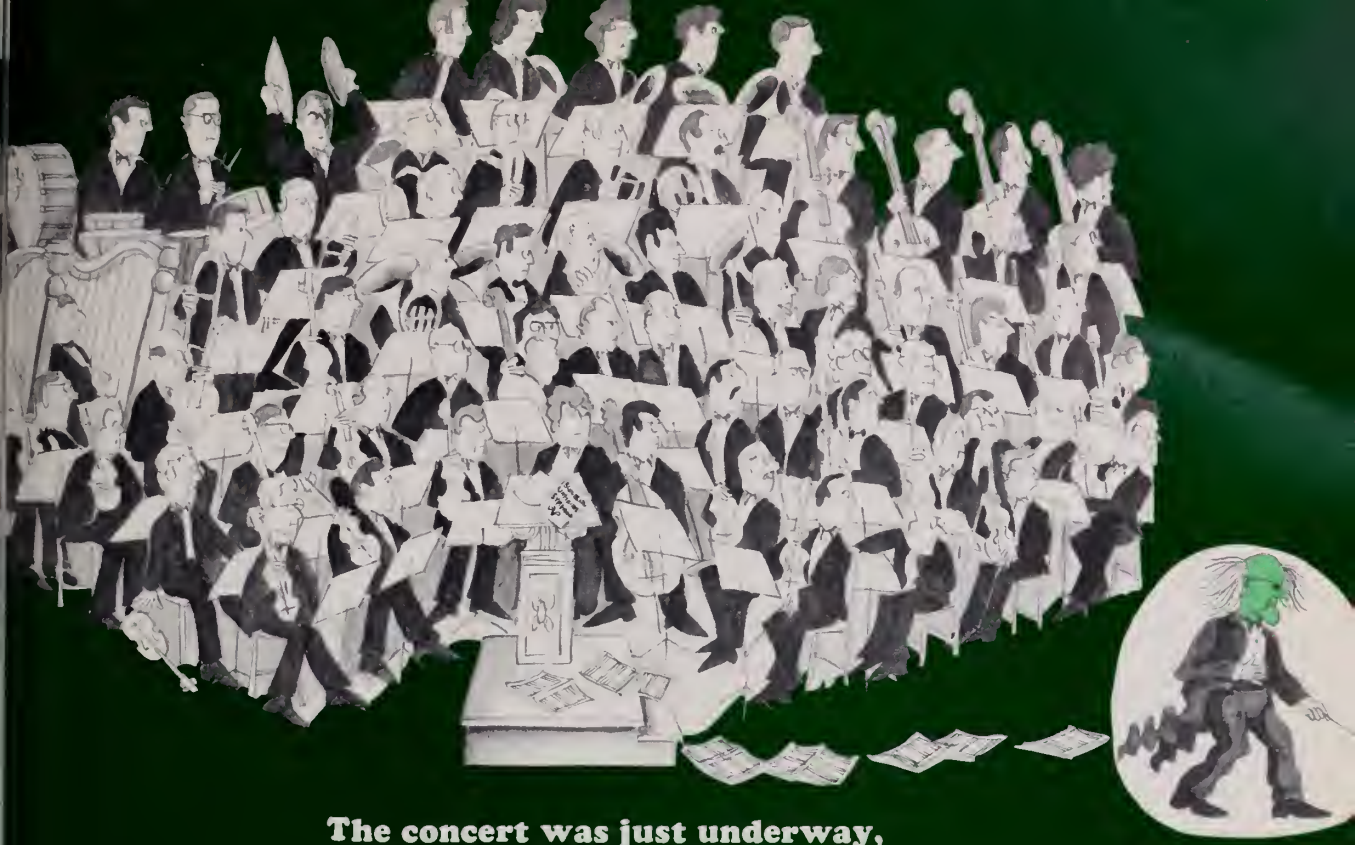
After the hearing, the Board can determine if the physician can continue to practice medicine, or if his judgment is impaired to the extent that further treatment, care or counselling may be required. For example, the Board might restrict the physician's practice to an institutional environment for the time being.

The Board may not permanently revoke a license under the "Sick Doctor Law." Licenses are suspended or restricted only for the duration of the incompetency. The doctor is guaranteed the opportunity to demonstrate that his license should be reinstated. Another protection afforded the doctor is that neither the unfavorable order against him nor the record of the proceedings may be used against him in any other legal proceeding.

The provisions of this law are remedial, and Florida was the first to enact such a statute. It is a firm but flexible law that can meet the demands of the complicated and sophisticated society in which we live. Both the public and the physicians who might find themselves the subjects of "Sick Doctor" proceedings are protected.

This statute is one of the most compelling reasons for the physicians of Florida to exert every possible influence to assure that the men appointed to our Board of Medical Examiners continue to be men of honor.





The concert was just underway,
When to the conductor's dismay
Cramps and diarrhea,
Did so quickly appear,
The maestro no longer could stay.

Because diarrhea with cramping, nausea, and painful straining can strike at the most inopportune time, it takes a comprehensive agent to treat the total diarrheal syndrome and help get the patient back on the job. That's why so many physicians rely on Donnagel, especially during the fall and winter months when "flu" and viral gastroenteritis usually hit their peak.

Donnagel is much more than just a simple kaolin-pectin combination. It also contains the belladonna alkaloids to calm GI hypermotility and help relieve the distressing discomforts which so often accompany diarrhea. Certainly it's less expensive and more convenient than taking two medications. And the dosage is lower too. Available in the handy 4-oz. plastic bottle at pharmacies everywhere on your prescription or recommendation.



When diarrhea and its discomforts separate a man from his job . . .

Donnagel®

Each fluid ounce contains: Kaolin, 6 g.; Pectin, 142.8 mg.; Hyoscyamine sulfate, 0.1037 mg.; Atropine sulfate, 0.0194 mg.; Hyoscine hydrobromide, 0.0065 mg.; Sodium benzoate (preservative), 60 mg.; Alcohol, 3.8%.

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Coughs are back.



clear the tract with the

Robitussin® Line

The coughing season is here again. Time to rely on the four Robitussins and Cough Calmers to help clear the lower respiratory tract. All contain glyceryl guaiacolate, the efficient expectorant that works systemically to help increase the output of lower respiratory tract fluid. The enhanced flow of less viscid secretions soothes the tracheobronchial mucosa, promotes ciliary action, and makes thick, inspissated mucus less viscid and easier to raise. Available on your prescription or recommendation.

For coughs of colds and "flu"

Robitussin®

Each 5 cc. contains:

Glyceryl guaiacolate	100.0 mg.

Alcohol, 3.5%

For unproductive allergic coughs

Robitussin A-C®

Each 5 cc. contains:

Glyceryl guaiacolate	100.0 mg.
Pheniramine maleate	7.5 mg.
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(warning: may be habit forming)
Alcohol, 3.5%

Non-narcotic for 6-8 hr. cough control

Robitussin-DM®

Each 5 cc. contains:

Glyceryl guaiacolate	100.0 mg.
Dextromethorphan hydrobromide	15.0 mg.

Alcohol, 1.4%

Clears sinuses and nasal stuffiness as it relieves cough

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Each 5 cc. contains:

Glyceryl guaiacolate	100.0 mg.
Phenylephrine hydrochloride	10.0 mg.

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Dextromethorphan hydrobromide	7.5 mg.

Select the Robitussin® "Clear-Tract" Formulation That Treats Your Patient's Individual Coughing Needs:

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All 5 Robitussins have an EXPECTORANT-DEMULCENT action. Keep this handy chart as a guide in selecting the formula that provides the *extra* benefits you want for your patient.

	Cough Suppressant	Antihistamine	Long-Acting (6-8 hours)	Nasal, Sinus Decongestant	Non-Narcotic
ROBITUSSIN®					●
ROBITUSSIN A-C®	●	●			
ROBITUSSIN-DM®	●		●		●
ROBITUSSIN-PE®				●	●
COUGH CALMERS™	AHR		AHR		AHR

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Because bacterial proliferation in the urine is a function of time and retention,[1,2,3] *dawn can be...*

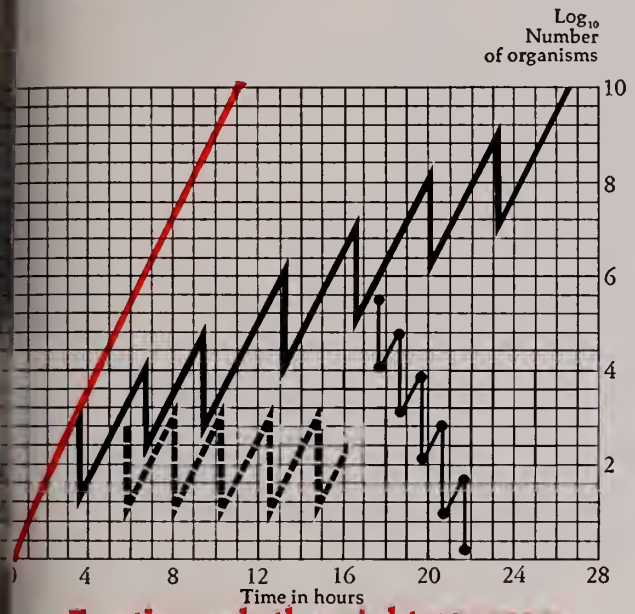
the darkest hour.



oiding frequency and bacterial build-up[1]

raph shows the theoretical effect of various
iding frequencies on bacterial proliferation in
e urine.

- maximum growth rate during the overnight period
- voiding every 3½ hours
- voiding every 2½ hours
- voiding every hour: the "washout" effect



For through-the-night coverage

orce fluids. Frequent micturition. It's hard to fault his regimen for dealing effectively with an acute bladder infection. Another fundamental adjunct to treatment is drug therapy for round-the-clock antibacterial coverage. Coverage that may be especially desirable during the night hours of sleep when urinary retention favors bacterial build-up in the bladder. This is the coverage that Gantanol (sulfamethoxazole) *b.i.d.* can provide.

Controls susceptible gram-negative and gram-positive bacteria

Within 2 to 3 hours of the initial 2-Gm adult dose, effective antibacterial levels in blood and urine begin working to control the most common urinary tract invaders. Subsequent 1-Gm *b.i.d.* doses maintain coverage your patient needs to fight *E. coli* and other susceptible gram-negative and gram-positive pathogens.

Your options: tablets or suspension

Prescribe Gantanol Tablets or the pleasant-tasting suspension. Either dosage form provides your patient with the all-day, all-night coverage she needs to fight off nonobstructed cystitis.

References: 1. O'Grady, F., and Cattell, W. R.: *Brit. J. Urol.*, 38:156, 1966. 2. Hinman, F., Jr., and Cox, C. E.: *J. Urol.*, *96*:491, 1966. 3. Lapides, J., *et al.*: *J. Urol.*, *100*:552, 1968.

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in acute, recurrent or chronic urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli, Klebsiella-Aerobacter, Staphylococcus aureus, Proteus mirabilis,* and, less frequently, *Proteus vulgaris*) and in the absence of obstructive uropathy or foreign bodies. *Note:* Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response. Add aminobenzoic acid to culture media of patients receiving sulfonamides. Resistant organisms present a current problem to the usefulness of antibacterial agents. Blood levels should be measured in patients receiving sulfonamides for serious infections, since there may be wide variations with identical doses; 20 mg/100 ml should be the maximum total sulfonamide level, as adverse reactions occur more frequently above this level.

Contraindications: Sulfonamide hypersensitivity; infants less than 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis); pregnancy at term and during nursing period.

Warnings: Safe use in pregnancy has not been established, and teratogenicity potential has not been thoroughly investigated. Sulfonamides will not eradicate or prevent sequelae to group A streptococcal infections, *i.e.*, rheumatic fever, glomerulonephritis. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported; early clinical signs such as sore throat, fever, pallor, purpura or jaundice may indicate serious blood disorders. Complete blood counts and urinalysis with careful microscopic examination are recommended frequently during sulfonamide therapy. Clinical data are insufficient on prolonged or recurrent therapy in chronic renal diseases of children under 6 years.

Precautions: Use with caution in patients with impaired renal or hepatic function, severe allergy, bronchial asthma and in glucose-6-phosphate dehydrogenase-deficient individuals. In the latter, dose-related hemolysis may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.

Adverse Reactions: *Blood dyscrasias:* agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia and methemoglobinemia; *allergic reactions:* erythema multiforme (Stevens-Johnson syndrome), skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia and allergic myocarditis; *gastrointestinal reactions:* nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis and stomatitis; *C.N.S. reactions:* headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo and insomnia; and *miscellaneous reactions:* drug fever, chills, toxic nephrosis with oliguria and anuria, periarteritis nodosa and L.E. phenomenon. Due to certain chemical similarities with some goitrogens, diuretics (acetazolamide and thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age, except adjunctively with pyrimethamine in congenital toxoplasmosis. Usual dosage is as follows:

Adults—2 Gm (4 tabs or teasp.) initially, then 1 Gm *b.i.d.* or *t.i.d.* depending on severity of infection. *Children*—0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially, followed by 0.25 Gm/20 lbs *b.i.d.* Maximum dose for children should not exceed 75 mg/kg/24 hrs.

Supplied: Each tablet or teaspoonful (5 ml) of suspension contains 0.5 Gm sulfamethoxazole.

In nonobstructed urinary tract infections

Gantanol® B.I.D.
(sulfamethoxazole)

12 hours of therapy with every dose

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MINTEZOL also provides an unusua
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complaints about stained teeth, clot
ing, or bed linen. The most frequent
occurring side effects have been an
rexia, nausea, vomiting, and dizziness



Contraindications: History of hypersensitivity to thiabendazole.

Warnings: May impair alertness; operation of automobiles and other activities made hazardous by diminished alertness should be avoided. If hypersensitivity reactions occur, drug should be discontinued immediately and not resumed; erythema multiforme, including Stevens-Johnson syndrome (with a fatal case), has been associated with thiabendazole therapy in children. Safe use in pregnancy or lactation has not been established.

Precautions: Since thiabendazole is metabolized in the liver and excreted by the kidneys, hepatic and renal function should be carefully monitored in patients with dysfunction of these organs.

Adverse Reactions: Frequently encountered are anorexia, nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddiness, and headache have occurred. Rarely, tinnitus, collapse, abnormal sensation in eyes, blurring of vision, hyperirritability, numbness, hyperglycemia, xanthopsia, enuresis, perianal rash, cholestasis and parenchymal liver damage, hypotension, and a transitory rise in cephalin flocculation and SGOT. Hypersensitivity reactions include: fever, facial flush, chills, conjunctival injection, angioedema, anaphylaxis, skin rashes, erythema multiforme (including Stevens-Johnson syndrome), and lymphadenopathy. Appearance of live Ascaris in the mouth and nose has been reported on rare occasions.

Some patients may excrete a metabolite which imparts an odor to urine, much like that which occurs after ingestion of asparagus. Crystalluria without hematuria has been reported on occasion, but has promptly subsided with discontinuation of therapy; while the etiologic role of thiabendazole has not been established, the possibility of crystalluria should be kept in mind. Transient leukopenia has been reported in a few patients, but the cause and effect relationship in these cases has not been established.

NOTE: In children weighing less than 30 pounds, clinical experience with thiabendazole for treatment of intestinal parasitosis has been limited. Thus, the benefits of this therapy should be weighed against the possibility of adverse reactions.

Supplied: Suspension, containing 500 mg per 5 cc, in bottles of 120 cc.

For more detailed information, consult your MSD representative or see the Direction Circular. Merck Sharp & Dohme, Division of Merck & Co., Inc., West Point, Pa. 19486

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(phenformin HCl)
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usually well tolerated

Mainly gastrointestinal side effects may occur. However, as with many drugs, you should keep in mind that higher dosages may increase the incidence. Hypoglycemic reactions are rare when DBI-TD is used alone.

to prescribe DBI®-TD (phenformin HCl) if diet alone fails specify

DBI-TD 50 mg. for the newly diagnosed overweight, stable adult diabetic
DBI-TD 100 mg. for the overweight, adult-onset diabetic who needs higher doses of a reliable oral hypoglycemic

Indications: Stable adult diabetes mellitus; sulfonylurea failures, primary and secondary. **Contraindications:** Diabetes mellitus that can be regulated by diet alone; juvenile diabetes that is uncomplicated and well regulated on insulin; acute complications of diabetes (metabolic acidosis, coma, infection, gangrene); surgery; severe hepatic disease; renal disease with uremia; cardiovascular collapse, after disease states associated with hypoxemia. **Warning:** Use during pregnancy is to be avoided. Until adequate data on the effects of DBI on the human fetus are available, such use can be considered experimental. **Precautions: Starvation Ketosis,** which must be differentiated from "insulin lack" ketosis, and is characterized by ketonuria in spite of relatively normal blood and urine sugar, may result from excessive DBI therapy, excessive insulin reduction or insufficient carbohydrate intake. Adjustment of DBI-TD or insulin dosage, or supplying carbohydrates, alleviates this state. DO NOT GIVE INSULIN WITHOUT FIRST CHECKING BLOOD AND URINE SUGARS. **Lactic Acidosis:** DBI is not recommended in the presence of azotemia or in any clinical situation that predisposes to sustained hypotension that could lead to lactic acidosis. To differentiate lactic acidosis from ketoacidosis, it is recommended that periodic determinations of ketones in the blood and urine be made in diabetics previously stabilized on DBI, or DBI and insulin, who have become unstable. If electrolyte imbalance is suspected, periodic determinations should also be made of electrolytes, pH and the lactate-pyruvate ratio. DBI should be withdrawn and insulin, when required, and other corrective measures instituted immediately upon the appearance of any metabolic acidosis. **Hypoglycemia:** Although hypoglycemic reactions are rare when DBI is used alone, every precaution should be observed during the dosage adjustment period, particularly when insulin or a sulfonylurea has been given in combination with DBI. **Adverse Reactions:** Principally gastrointestinal, occurring more often at higher dosage levels; unpleasant metallic taste, continuing to anorexia, nausea and, less frequently, vomiting and diarrhea. Reduce dosage at first sign of these symptoms. In case of vomiting, DBI should be immediately withdrawn. Although rare, urticaria and gastrointestinal symptoms following excessive alcohol intake have been reported. **Dosage:** 25 mg.-300 mg. daily. **How Supplied:** 50 mg. timed-disintegration capsules, bottles of 100 and 1000; 100 mg. timed-disintegration capsules, bottles of 100 and 500. **Also Available:** DBI tablets 25 mg., bottles of 100 and 1000.

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when manhood ebbs or is delayed

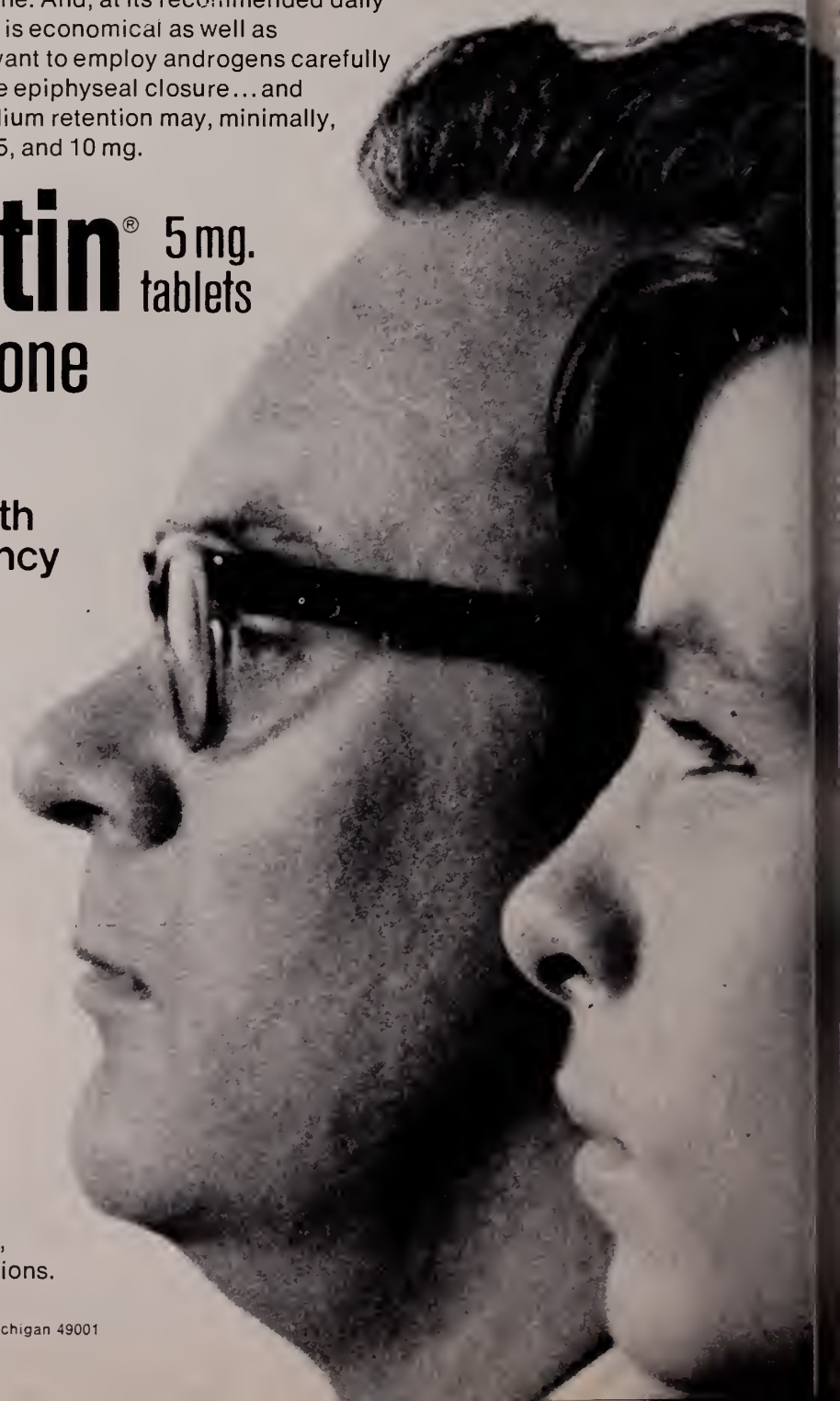
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(fluoxymesterone Upjohn)

oral replacement with parenteral-like potency



Please see facing column for summary of contraindications, precautions, and adverse reactions.

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ally active androgen about 5 times as potent anabolic and androgenic activity as methyltesterone. Halotestin (fluoxymesterone) induces gnificant retention of calcium and potassium, t retention of sodium not marked. Doses below mg. daily have little effect in producing eatinuria.

dications *Male:* Replacement therapy in testular hormone deficiency states. Prevents atroy of the accessory male sex organs following stration for as long as therapy is continued. potence and male climacteric symptoms when e to androgen deficiency. Primary eunuchoidn and eunuchism. Delayed puberty when eslished as not a simple familial trait. Indicated those symptoms of panhypopituitarism reed to hypogonadism, however, appropriate renal cortical and thyroid hormone replaceent therapy remain of primary importance. *male:* Palliation of androgen-responsive, adnced, inoperable breast cancer in women beeen 1 and 5 years postmenopausal or women whom castration has shown the tumor to be rmone dependent. Prevention of postpartum east manifestations of pain and engorgement; ere is no satisfactory evidence that this drug events or suppresses lactation per se. In osporosis androgens may be of adjunctive lue to adequate considerations of diet, calum balance, physiotherapy and general health omoting measures. *Males and Females:* In the eatment of protein depletion states which occ in geriatric patients, in debilitation states, in ronic corticoid therapy, resistant fractures; yptorchidism; creating a positive nitrogen balce, tissue repair and other anabolic effects. drogenic steroids may produce a response in lastic anemias, myelofibrosis, myelosclerosis, gnogenic myeloid metaplasia and hypoplastic emias due to malignancy or myelotoxic drugs. drogens are not of value in other anemias.

ontraindications Pregnancy (may virilize female fetus), mammary carcinoma in the male, rostatic carcinoma, severe liver disease, severe drenal disease and severe persistent hyercalcemia.

recautions Employ with caution in young boys avoid precocious sexual development and rematurе epiphyseal closure. Androgens tend promote retention of sodium and water, therere, watch for edema—particularly in the elderly. cidence and severity of edema have been inimal and have been associated only with gh doses used for palliation of breast cancer. ypercalcemia may occur, particularly in patients ith metastatic breast carcinoma; if this occurs e drug should be discontinued. Changes in ver function tests, such as increased BSP retention and SGOT levels, can occur during therpy. Jaundice has been rarely reported. If liver nction tests are altered, discontinue medicaon or reduce dose. Priapism is indicative of xcessive dosage and is indication for tempoary withdrawal of drug. When treating protein epletion states or osteoporosis, an adequate iet should be provided and prolonged immobiliation avoided whenever possible. When treating plastic or hypoplastic anemias, androgen therpy should not replace other measure such as ansfusion, correction of iron deficiency, antiacterial therapy, and the use of corticosteroids.

dverse reactions Nausea, dyspepsia, menstrual irregularities, hepatic dysfunction, priaism, edema, precocious sexual development, nd premature epiphyseal closure in young atients have been reported. *Male*—Prolonged dministration or excessive dose may cause hibition of testicular function with oligospermia nd decreased ejaculation volume. *Female*—arge doses or prolonged administration may roduce masculinization with signs such as hirutism, deepening of the voice, enlargement of he clitoris, acne, and sometimes, increased bido.

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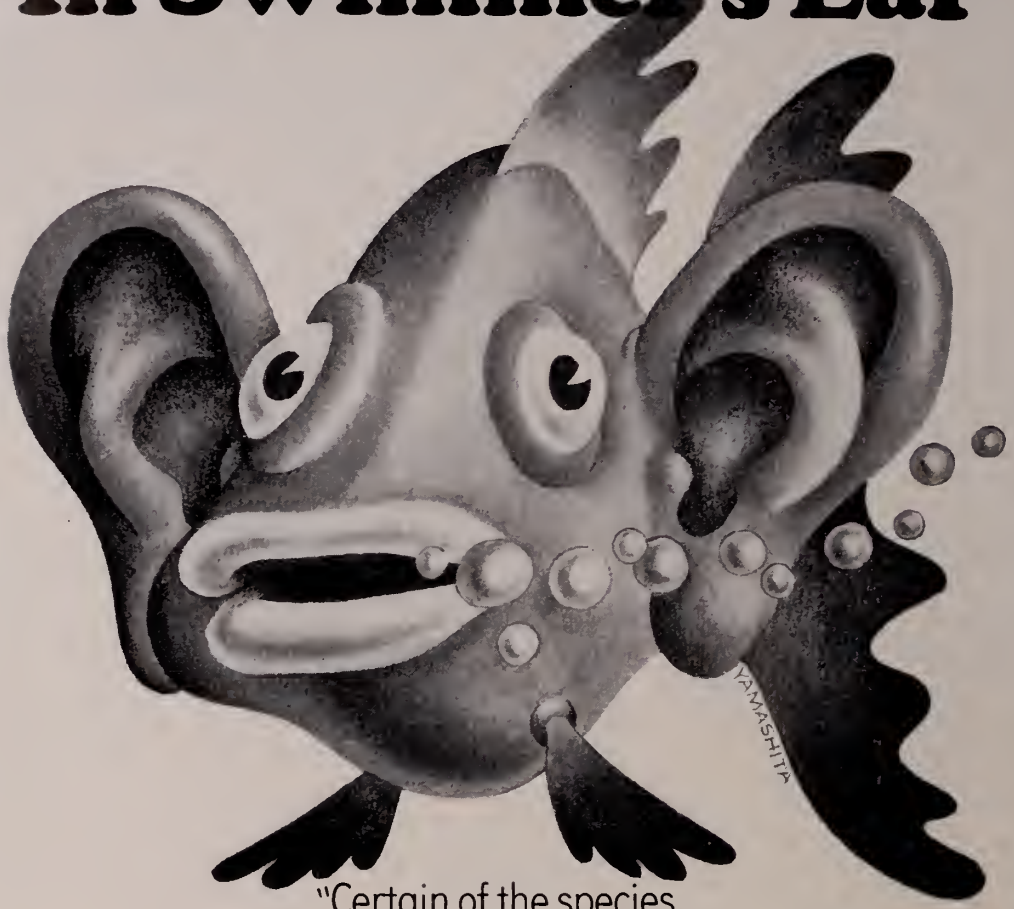
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This preparation is not indicated for use in treatment of cholesteatoma, where surgical intervention is necessary.

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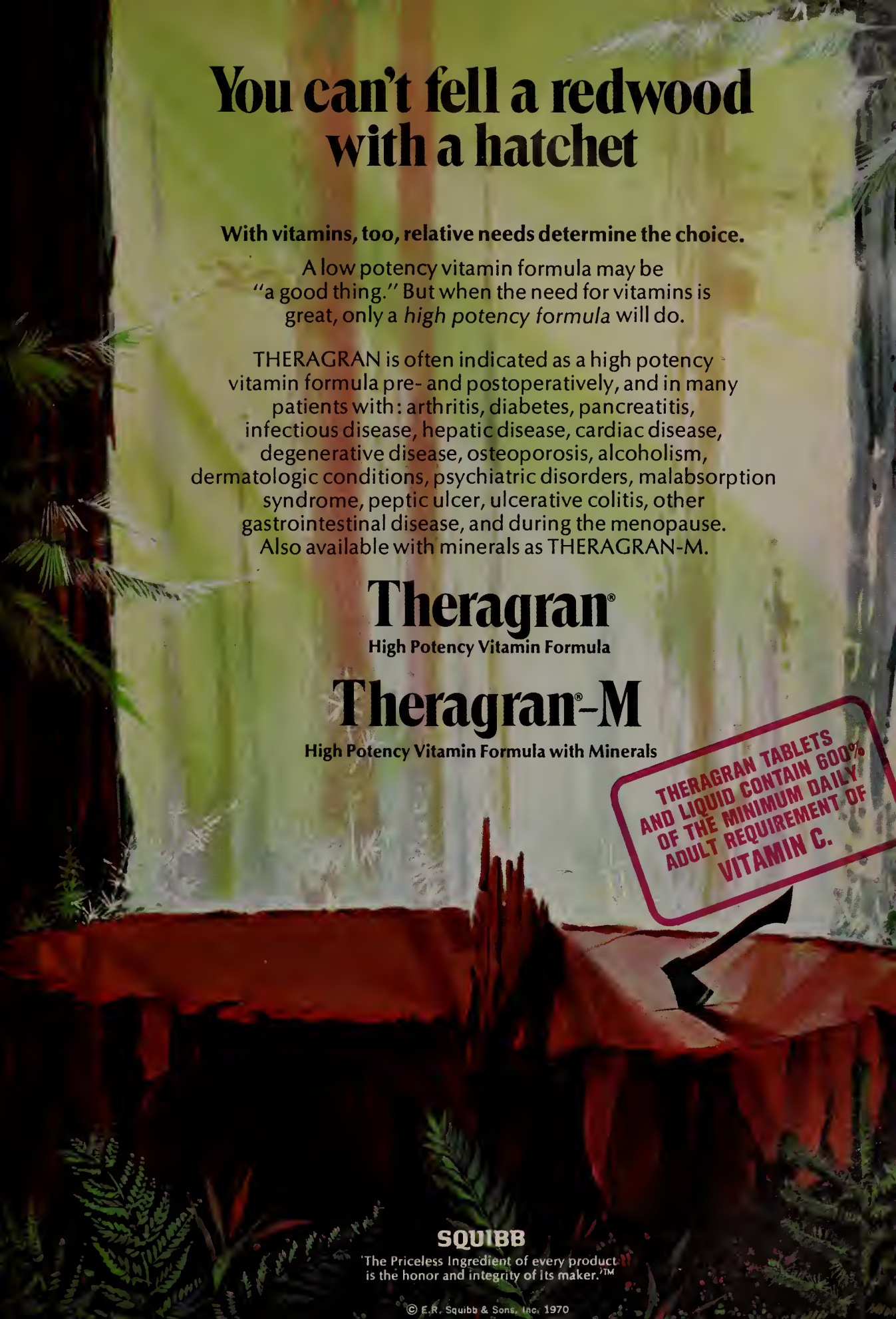
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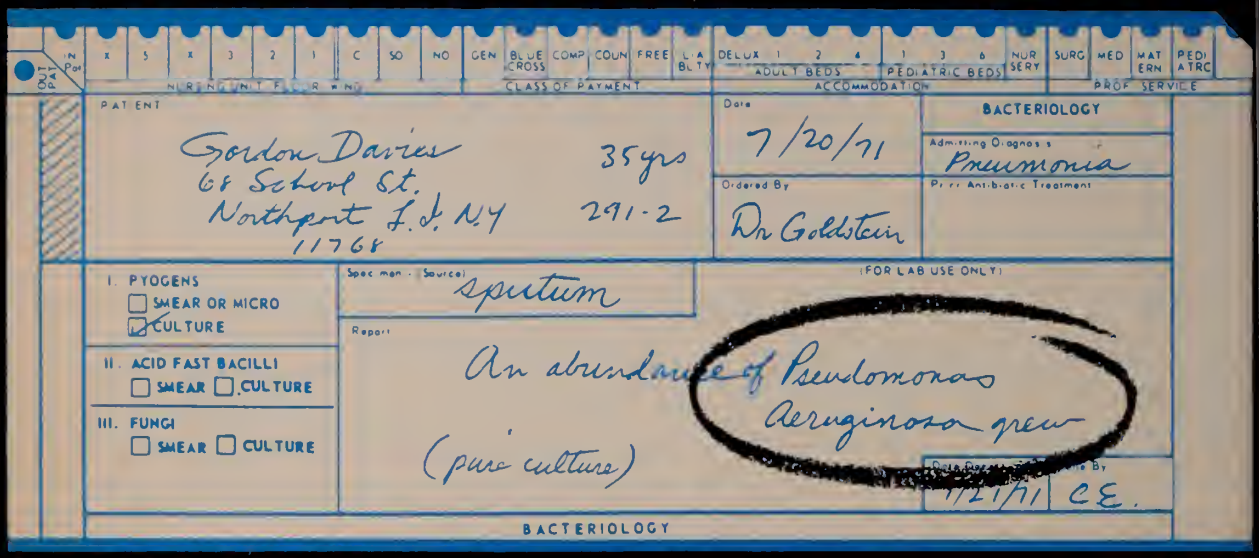
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1. Gordon, E. E. and Haas, A., Indust. Med. & Surg. 28:217, May, 1959.

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PRESCRIBING INFORMATION **Indications:** Primarily for treatment of infections due to susceptible strains of *Pseudomonas aeruginosa*, *Proteus* species (particularly indole-positive strains), and certain *Escherichia coli*. Clinical effectiveness has been demonstrated in the following infections when due to these organisms: Urinary tract infections; severe systemic infections and septicemia; acute and chronic respiratory infections (while clinical improvement has been shown, bacteriologic cures cannot be expected in patients with chronic respiratory disease and cystic fibrosis); soft tissue infections. Although PYOPEN (disodium carbenicillin) is indicated primarily in Gram-negative infections, its activity against Gram-positive organisms should be kept in mind when both Gram-positive and Gram-negative organisms are isolated (see Actions). **Note:** During therapy, sensitivity testing should be repeated frequently to detect the possible emergence of resistant organisms. **Actions:** Organisms found to be susceptible *in vitro* include: Gram-Negative Organisms-*Ps. aeruginosa*, *Proteus mirabilis*, *Pr. morganii*, *Pr. rettgeri*, *Pr. vulgaris*, *E. coli*, *Enterobacter* species, *Salmonella* species, *Hemophilus influenzae*, and *Neisseria* species. Gram-Positive Organisms-*Staphylococcus aureus* (nonpenicillinase-producing), *Staph. albus*, *Diplococcus pneumoniae*, Beta-hemolytic streptococci, and *Streptococcus faecalis*. Some newly emerging pathogenic strains of *Herellea*, *Mima*, *Citrobacter*, and *Serratia* have also shown *in vitro* susceptibility. Not stable in the presence of penicillinase. *Klebsiella* species are resistant. Some strains of *Pseudomonas* have developed resistance fairly rapidly. **Contraindications:** Known penicillin allergy. **Warnings:** Serious and occasional fatal hypersensitivity (anaphylactic) reactions have been reported in patients on penicillin therapy. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens. There have been reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, appropriate therapy should be instituted and discontinuance of disodium carbenicillin therapy considered, unless the infection is life threatening and only amenable to disodium carbenicillin therapy. The usual agents (antihistamines, pressor amines, and corticosteroids) should be readily available. **Usage in Pregnancy:** Safety for use in pregnancy has not been established. **Precautions:** As with any other potent agent, it is advisable to check periodically for organ-system dysfunction, including renal, hepatic, and hematopoietic systems, during prolonged therapy. Emergence of resistant organisms, such as *Klebsiella* species and *Serratia* species, which may cause superinfection, should be kept in mind. Each gram contains 4.7 mEq sodium; in patients where sodium restriction is necessary, such as cardiac patients, periodic electrolyte determinations and monitoring of cardiac status should be made. Observe patients with renal impairment for bleeding manifestations and adhere strictly to dosage recommendations. If bleeding manifestations appear, discontinue antibiotic and institute appropriate therapy. As with any penicillin preparation, the possibility of an allergic response, including anaphylaxis, may occur, particularly in a hypersensitive individual. **Administration:** Intramuscular injections should be made well within the body of a relatively large muscle (not into the lower and mid-third of the upper arm), and aspiration is necessary to help avoid inadvertent injection into a blood vessel. May be given by either intravenous injection or intravenous infusion. After reconstitution with Sterile Water for Injection unused portions should be discarded after 24 hours if stored at room temperature, or after 72 hours if refrigerated. **Adverse Reactions:** *Hypersensitivity Reactions*—Skin rashes, eosinophilia, pruritus, urticaria, drug fever, and anaphylactic reactions. *Gastrointestinal Disturbances*—Nausea. *Hemic and Lymphatic Systems*—Hemolytic anemia, thrombocytopenia, leukopenia, neutropenia, in uremic patients receiving high doses (24 gm/day), hemorrhagic manifestations associated with abnormalities of coagulation tests, such as clotting and prothrombin time. *Hepatic and Renal Studies*—SGOT and SGPT elevations have been observed, particularly in children. To date, no clinical manifestations of renal disorders have been demonstrated. *Central Nervous System*—Convulsions or neuromuscular irritability could occur with excessively high serum levels. *Local Reactions*—Pain at the site of injection, sometimes accompanied by induration. Vein Irritation and Thrombophlebitis—particularly when undiluted solution is injected directly into the vein. **How Supplied:** Available in 1 Gm. and 5 Gm. vials.
Before prescribing or administering, see package circular or PDR.



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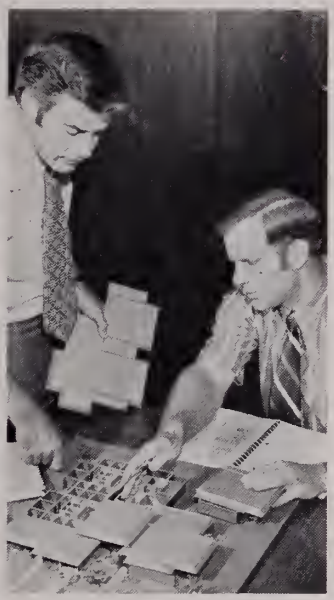
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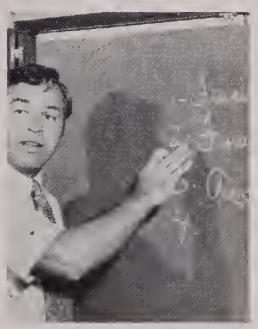
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THE JOURNAL OF THE Florida Medical Association

Clinical Indications for Coronary Arteriography

Frank J. Hildner, M.D., Roger P. Javier, M.D., Lawrence S. Cohen, M.D., Nathan Segel, M.D. and Philip Samet, M.D.

Coronary arteriography is a radiographic procedure used in defining the anatomy of the coronary arteries in detail. Initially, it was employed to determine the extent of disease in patients with clinical coronary artery disease (CAD), particularly those for whom surgical therapy was contemplated. At present, however, coronary arteriography serves an expanded role since it helps the physician to determine the etiology of myocardial disease, evaluate patient operability and re-evaluate surgical results. To emphasize the present role of this procedure, we have reviewed the indications for coronary arteriography in the last 200 cases undergoing this procedure in Mount Sinai Hospital.

Materials and Methods

Selective coronary arteriography was performed in a total of 200 patients for the reasons listed in Table 1. Both the Sones and the percutaneous femoral arterial puncture techniques were used.[1] The method for performing coronary arteriography was determined as part of the overall technical approach for studying the patient. In all cases, left ventriculography was performed to evaluate left ventricular (LV) contractility prior to coronary artery visualization.[2] Renografin-76 served as the contrast agent. During the study, all patients lay supine in a rotating cradle which allowed rapid change of position for angiographic viewing. Constant electrocardiographic (ECG) monitoring was used to detect arrhythmias or aberrations in ECG morphology. Aortic pressure was monitored through the angiographic catheter.

From the Cardiac Catheterization Laboratory, Division of Cardiology, Department of Medicine, Mount Sinai Hospital, Miami Beach, and the University of Miami School of Medicine, Miami.

Indications for Study

Coronary Artery Disease

Forty-four patients were clinically thought to have significant CAD. Through coronary arteriography 38 (87%) patients were shown to have significant (at least one vessel greater than 75% occluded) obstructive coronary artery disease and 6 (13%) were found to have minimal nonobstructive CAD or no disease at all.

Most of the patients with significant coronary artery disease had two or three vessels seriously affected. Medical treatment of a number of these patients was aided by accurate knowledge of coronary artery anatomy and myocardial function obtained from the study (Fig. 1). Surgical revascularization was guided by the map of the coronary tree developed during angiography. Bypass vein grafting of either the right or left coronary

Table 1.—Clinical Indications for Coronary Arteriography.

Indications	Patient Number
Chest Pain	
A—Probable coronary artery disease	44
B—Atypical chest pain	16
Congestive heart failure	25
Valvular heart disease	105
Heart disease of obscure cause	10
Total	200

arteries requires peripheral patency of these vessels. Peripheral occlusion in the right coronary artery, however, may still be successfully treated through the use of gas endarterectomy.[3] In those patients found to have minimal or no coronary disease (Fig. 2), noncardiac causes of chest pain such as costochondritis, cervical arthritis, and myofasciitis were eventually diagnosed. Sixteen additional patients (Table 1) had atypical chest pain and were found to have normal coronary arteries.

Congestive Heart Failure

Twenty-five patients with congestive heart failure (CHF) were thought to have either left ventricular aneurysm or primary myocardial disease. Although severe LV myocardial disease was demonstrated in each patient, definition of the specific abnormality was possible by catheterization. When LV aneurysm was present, all patients were found to have obstructive CAD (Fig. 3). Any decision concerning surgical correction of the aneurysm, therefore, also included consideration of repair of the coronary arterial lesions. In those patients found to have myocardial dysfunction without an LV aneurysm, an arteriosclerotic etiology was easily distinguished from idiopathic myocardiopathy. Prognosis and plans for treatment in these patients were based on physiologic and anatomic evidence obtained from the diagnostic study.

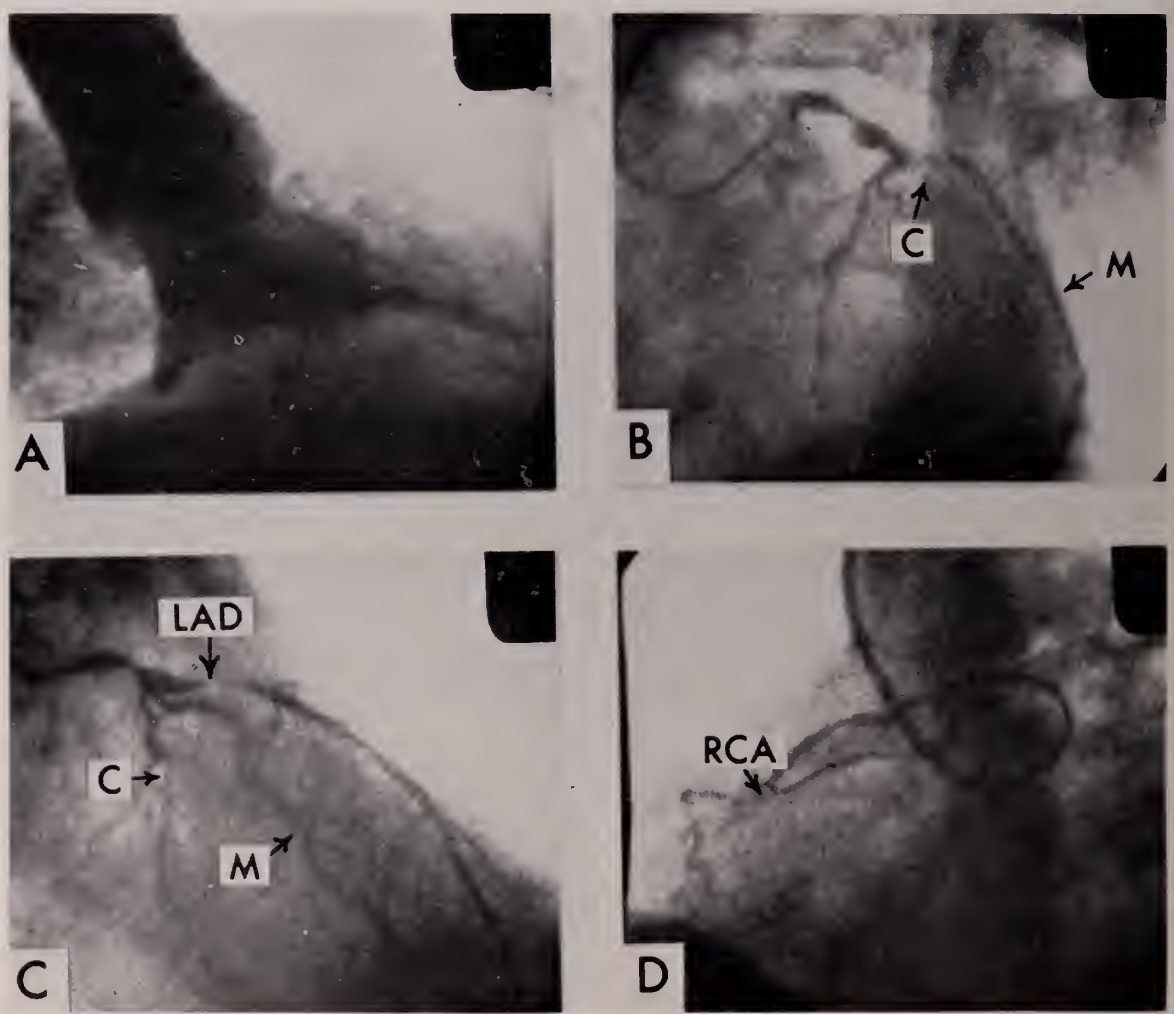


Fig. 1.—Coronary arteriogram in a 42-year-old male with clinical angina, three vessel obstructive disease, but normal ventricular function.

A.—RAO view of left ventricle in full systole. Very small end-systolic volume and uniform motion of entire chamber indicates good myocardial function.

B.—Left coronary artery. Complete occlusion of main circumflex artery (C). M—marginal branch.

C.—RAO view of LCA. 90% obstruction of left anterior descending (LAD) artery is seen. Complete obstruction of circumflex (C).

D.—LAO view of right coronary artery (RCA). Complete obstruction of major RCA at bifurcation of lateral ventricular branch.

Valvular Disease

One hundred and five patients with predominantly valvular heart disease underwent coronary arteriography in addition to the diagnostic hemodynamic studies. Six patients were studied postoperatively. Accurate knowledge of the anatomy of the coronary arterial tree materially aids the attending physician and the surgeon in planning optimum care (Fig. 4). The three most common causes for failure of clinical improvement after operative correction of valve disease are: CAD, residual valvular disease, and idiopathic myocardial dysfunction.[4]

Definite evidence of CAD in patients causes the surgeon to alter his approach toward operative repair. To leave surgically correctable vascular lesions untouched after valve replacement may ultimately result in a poor surgical result. In these cases it is possible to have the patient relieved of symptoms of congestive failure only to have angina become a major problem.

Similarly, obstructive vascular disease causes reduced myocardial contractility, chamber dilatation and aneurysm. In rare instances, a dilated poorly functioning LV may contraindicate valve surgery. Resection of a nonviable aneurysmal portion of the left ventricle contributes further to the mechanical advantage gained by valve replacement and removes a potential source of failure.

Postoperative Valve Surgery

Postoperative restudy of patients who have undergone valve replacement establishes the value of the operation or the presence of residual disease. Coronary arteriography may be performed to evaluate the site and extent of coronary artery disease possibly from coronary artery embolus. Information obtained in this manner aids clinical management of symptoms of fatigue, dyspnea and chest pain.

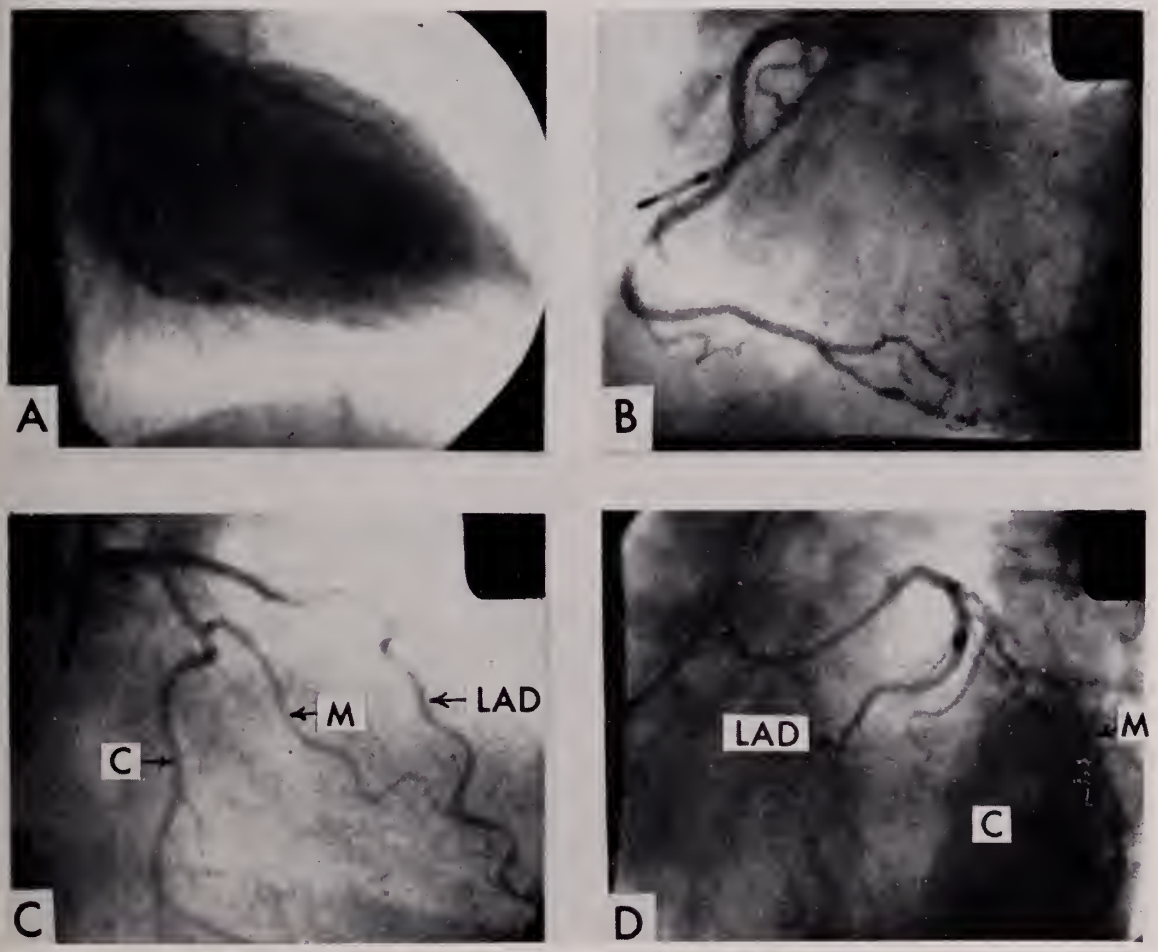


Fig. 2.—52-year-old female with chest pain suggesting angina pectoris.
A.—Normal left ventricle shown in full diastole.
B.—Normal right coronary artery seen in the LAO view.
C.—Normal left coronary artery seen in the RAO view. LAD—left anterior descending. M—marginal branch. C—circumflex.
D.—Normal left coronary artery seen in the LAO view. LAD—left anterior descending. M—marginal branch. C—circumflex.

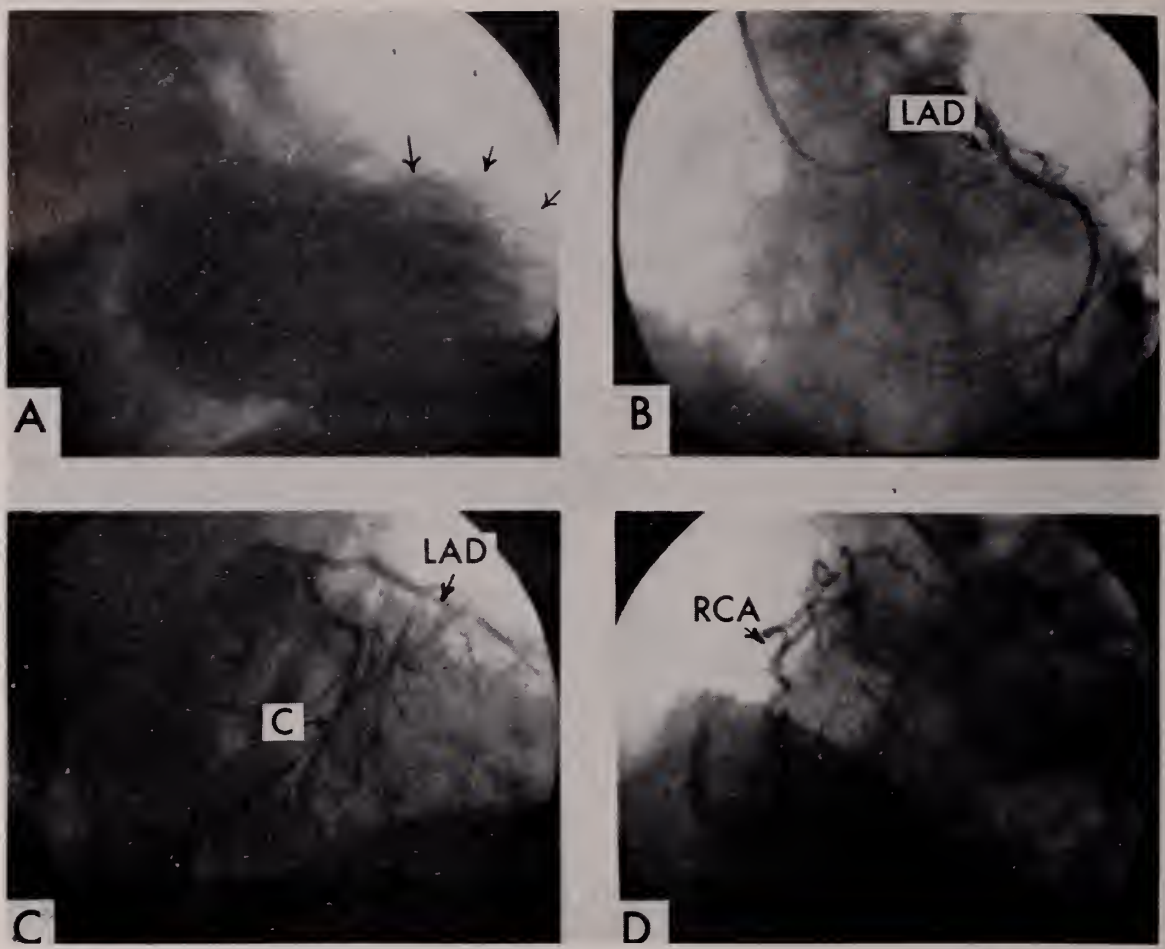


Fig. 3.—57-year-old male with congestive heart failure but no angina.
A.—RAO view of left ventricle with huge apical aneurysm (arrows). Ventricle shown in full systole.
B.—LAO view of left coronary artery with complete obstruction of left anterior descending (LAD) at its origin.
C.—RAO view of LCA showing complete obstruction of LAD. Circumflex is normal (C).
D.—LAO view of right coronary artery with complete obstruction (RCA) in midportion. Distal vessel fills through collateral branches.

Myocardial Revascularization

After surgical revascularization of the myocardium, careful study is needed to ascertain the extent to which blood supply has been increased. Visualization of the graft or operative site as well as the coronary arteries is needed to judge the change in flow patterns which may occur after surgery. Such information is of great value to the clinician who must reconcile the patient's symptoms with an estimate of the vascular supply. Longitudinal studies of this type will ultimately determine whether current procedures should be continued or modified to obtain optimum results.

Heart Disease of Obscure Cause

Ten patients presented problems in diagnosis despite extensive clinical workup. Cardiac catheterization and coronary arteriography were used to resolve the difficulties. These cases may be divided into three categories namely, arrhythmias, congenital heart disease and suspected heart disease.

Arrhythmias. Four patients with severe recurrent arrhythmias but without other historical, physical, radiographic or ECG evidence of heart disease were studied for occult disease. While many patients with arteriosclerotic and valvular heart disease experience arrhythmias, many patients with idiopathic complete heart block have primary degenerative disease and no demonstrable CAD.

Congenital Heart Disease. Few patients with congenital heart disease require coronary arteriography, but the procedure is beneficial in certain instances. Some patients with pulmonary hypertension may experience pain similar to angina. Others with systolic or even continuous murmurs may have a surgically correctable coronary artery fistula. ECG findings characteristic of ischemia or even infarction may result from an anomalous origin of a coronary artery from the pulmonary artery or from coronary artery fistula.

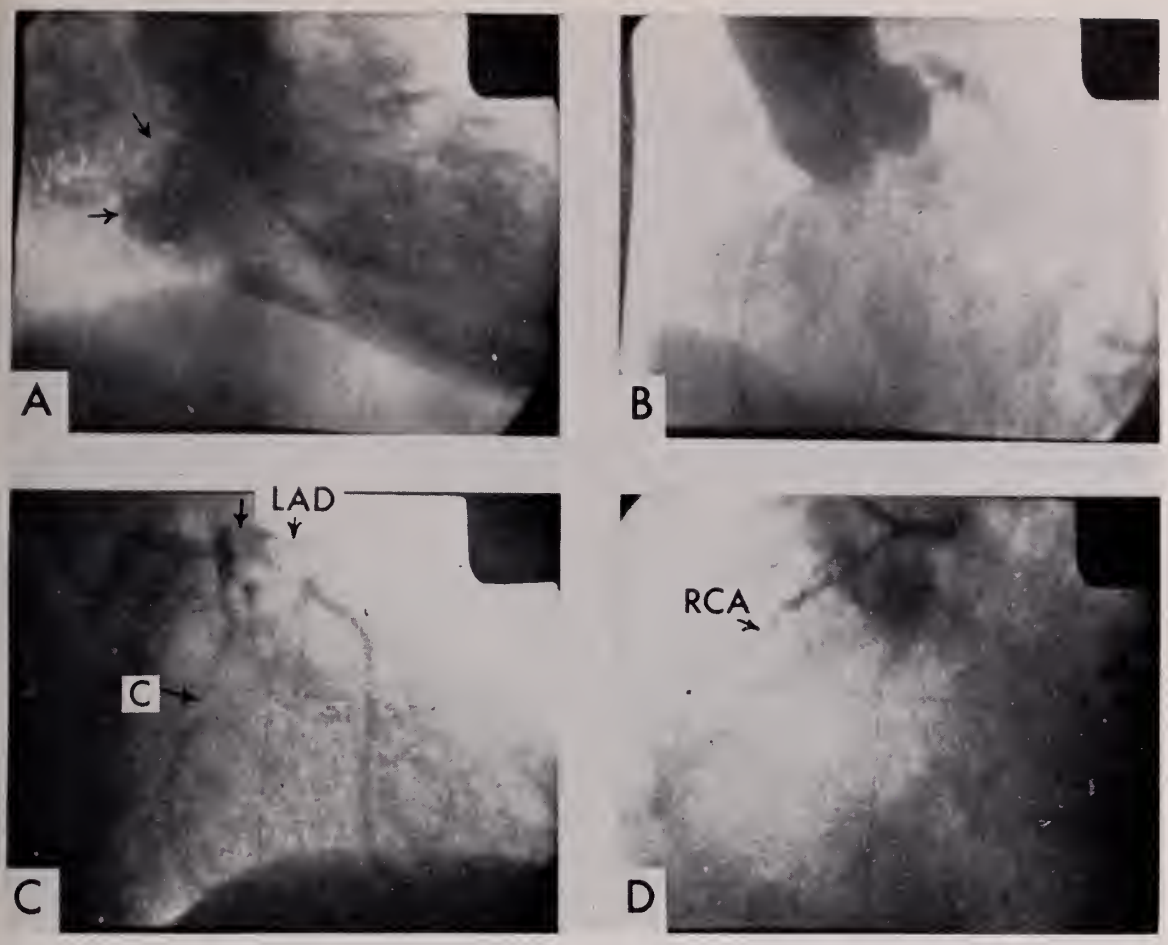


Fig. 4.—71-year-old female with severe mitral stenosis a nd coronary artery disease.
A.—RAO view of left ventricle in full diastole. Th e mitral valve (arrows) is deformed.
B.—View of normal ascending aortic arch with com petent aortic valve.
C.—RAO view of left coronary artery with 90% obstr uctive lesion (arrows) of left anterior descending (LAD).
D.—LAO view of right coronary artery which is totally obstructed near its origin (RCA).

Suspected Heart Disease. In many patients, clinical symptoms such as atypical anginal or shoulder pain and abnormal ECG findings may cause the patient or physician to have concern about cardiac disease. The reassurance that may be given to selected patients shown to have angiographically normal coronary arteries may not infrequently result in return of the patient to work or usual daily activities. The economic benefits to the patient who is shown to have no significant disease may be considerable as he returns to work and regains insurability.

It is not infrequent for patients with idiopathic hypertrophic subaortic stenosis, idiopathic myocardiopathy or other types of hereditary and congenital diseases to present as possible coronary artery disease. Radiologic and ECG findings of these diseases may mimic CAD. In these cases, an established diagnosis benefits not only the physician in his ability to treat the patient, but also the patient's family members who are also potentially affected.

Summary

Coronary arteriography is useful in evaluating many types of heart disease other than CAD. Besides aiding in the differential diagnosis of chest pain, it is useful in determining the etiology of myocardial disease or heart failure, and in evaluating the results of surgical procedures. Treatment which is based on anatomic and physiologic facts obtained at the time of angiographic study is often more accurate than that derived from purely clinical evaluation.

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Subcutaneous Filarial Worms in Florida

Leon W. Powell Jr., M.D. and James W. Grossnickle, M.D.

In 1965 Beaver and Orihel collected 25 cases of subcutaneous infection by worms of the genus *Dirofilaria*. Twenty of these were from Florida.[1] Other cases have been recorded, but the facts about these worms are not widely known.[2,3] Consequently, we want to report three more cases and comment on their significance.

Report of Cases

Case 1.—The first patient was a 35-year-old white female resident of Stuart, Florida, who noticed a nodule on the flexor surface of her left forearm. It had been present one month and was not tender. The nodule was 1.5 cm. in diameter, located in the subcutaneous tissue and resembled a lipoma. The lesion was surgically removed and pathological examination showed a small, coiled worm surrounded by chronic inflammation. This worm was identified as *Dirofilaria tenuis,* a common subcutaneous parasite of the raccoon.[4]

Case 2.—The second patient was a 58-year-old white female resident of Stuart, Florida, who complained of a lump in the upper, inner canthus area that itched. The lump had been present three weeks and measured 2.5 x 1.2 x 1.2 cm. The lesion was removed and during surgery the worm was discovered. It looked like a white thread about 9 cm. long but it was slightly elastic. The surrounding tissue showed fibrosis and chronic inflammation. This worm was also identified as *Dirofilaria tenuis.*

Case 3.—A third case was found in a 31-year-old white female resident of Stuart, Florida. A subcutaneous nodule, 1½ cm., formed in the parotid gland region that was present for at least three weeks before removal by Dr. E. Stanton Maxey. The nodule simulated a parotid tumor. The worm, about 5 cm. long and thread-like, was found at operation.

Discussion

Dirofilaria tenuis is fairly common in wild raccoons in Florida.[5] The adult worms are located in the subcutaneous tissue of the animal. The male and female worms need to be present to produce microfilariae which circulate in the peripheral blood and are transmitted by mosquito to other hosts. The infection causes the raccoon very little inconvenience. Pistey studied the development of *Dirofilaria tenuis* on Longboat Key, Florida,[6] and found the mosquito *Aedes taeniorhynchus* to be the natural vector there. Since *Aedes taeniorhynchus* is a common saltwater marsh mosquito throughout coastal Florida,[7] it is probably the natural vector of *Dirofilaria tenuis* in other parts of the state as well.

The great majority of human cases have been single worm infections and microfilariae were not found; however, Pacheco and Schofield studied a case with microfilariae.[3] They considered man a potential suitable host for the worm. Most infections caused only localized nodules in the subcutaneous tissue; however, the worm has been found in the conjunctiva and the eyelid. Simple removal effects a cure.

The adult female worm measures 9 cm. x 0.3 mm., the male 4.5 cm. x 0.2 mm., dimensions which make the worm appear quite thread-like.[5] The nematode takes about seven months to reach maturity in the raccoon and this is probably true in man.

Two interesting facts appear. First, the infections are more common in females by a ratio of five to one. This is difficult to explain. Second, the patients usually noticed their symptoms for about one month before consulting a physician. Beaver and Orihel speculated that symptoms were caused by tissue reaction to the dead worm, since two thirds of the worms were dead when removed.[1]

Summary

In summary, we can say that at least 23 cases of *Dirofilaria tenuis* infections have occurred in Florida. No doubt many more cases never came to light. However, we predict that *Dirofilaria tenuis* will soon follow the passenger pigeon into oblivion. As pavement and condominiums replace the natural habitat of the raccoon, the worm must learn to adopt man as host—or perish from this earth.

Acknowledgment

We are indebted to Dr. Paul C. Beaver of New Orleans for identification of these worms.

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Respiratory Intensive Care

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Over the past two decades the character of pulmonary care has been changed dramatically mainly by the use of antibiotic drugs. Pneumonia, once "Captain of the Men of Death," and tuberculosis, called "consumption" for hundreds of years, have been brought under control to a considerable degree. Attention has turned to conditions in the lungs which maim and kill by interfering with pulmonary function and circulation.

Terms such as "respiratory arrest" and "pulmonary insufficiency" have appeared in the literature and in hospital conversation. A new climate has been created conducive to more widespread interest in pulmonary physiology and its application to clinical practice. Almost every day new ideas, techniques, medicines and mechanical aids appear.

The respiratory patient, after arrival in the intensive care facility, is the center of this discussion. Simple management guidelines are suggested and recommendations made for better care, safety and cleanliness. Some of these are ironclad, permitting no shortcuts; others are open for debate.

Admission Screening

The idea of a single breath screening test to provide a helpful parameter or two on all adult patients upon admission to the hospital is becoming popular. The values obtained will give an elemental knowledge of the patient's respiratory condition by placing a pulmonary "fingerprint" into his record.

Blood Gas Analyses

An arterial blood gas determination should be made upon admission or as soon as possible on each "respiratory suspect" and on the patient in respiratory intensive care. These parameters afford insight into the integrity of the cardiopulmonary system at a given time and serve as a baseline for future reference.

Interest in the blood gas should not end here. The physician following in his mind what is taking place in the patient's lungs, perfusion-wise, should be interested in frequent arterial blood gas analyses. Before and after reports will guide him in intelligently managing every phase of respiratory care.

Suctioning

After establishing a functioning airway and providing for its maintenance, suctioning is the next most important duty of personnel. The acutely or chronically ill patient may be in danger of "drowning" in his own secretions and must be "brought to the surface" as it were. Those performing this important procedure should be mindful of the possibility of fluid accumulating in the air spaces.

They must also be mindful of the danger of hypoxia, even for short periods, and that oxygen can prevent and counteract it. We instruct our staff to "bag" 100% oxygen into the air passages of the patient before and after suctioning. This stream may dislodge thick secretions and stubborn encrustations that might not otherwise come loose from the walls of the breathing passages.

The necessity for repeated suctioning cannot be overstressed. Personnel in the respiratory intensive care unit should be warned that the catheter, while a life-saving tool, may be potentially lethal.

This long, slender semirigid tube should be introduced deliberately, not roughly nor forced, into the delicate air passages as deep as it will go without too much delay. As the tube is withdrawn it should be spun slowly (360°) between the fingers and rotated at the same time, describing circles of six or eight inches in diameter. This cleans and sucks out the air passages and the breathing tube in very thorough fashion.

While doing this the catheter should not remain overly long deep down among the branches of the bronchial tree. In the minor ramifications (basal bronchi) or even against still smaller bronchial orifices (rami of basal bronchi), the catheter may empty a representative portion of a lobule, or segment, of vital life-giving gas thereby causing varying degrees of hypoxia and atelectasis.

This procedure should be completed in not more than 15 seconds and the bronchial tree not reentered in less than three minutes unless secre-

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tions in the respiratory tract were found to be so voluminous as to greatly endanger the patient's well-being. Then they are removed immediately. Following each manipulation the catheter is changed and the patient "bagged" with 100% oxygen which can open up alveoli, clear out accumulated carbon dioxide and very well use up the previously mentioned three minutes.

Many cardiac arrests undoubtedly have occurred because of poor suctioning technique. Trauma is another complication that must be mentioned. The mucosal lining and submucosa of the tracheobronchial tree have been denuded, eroded and ulcerated on occasions too numerous, as demonstrated in the autopsy room. Pathological specimens have shown involvement right down to muscle and cartilage and into the lung as far as the entrance of bronchial branches into the lower lobes.

Preservation of the integrity of the lining of the air passages is of paramount consideration. Our technicians are instructed to use this equipment and observe these safeguards:

1. A catheter with a vent near its proximal end (Vent-rol, Tip-Trol, etc.,) or an unvented catheter joined to the suction line by a "Y" connector. These devices permit immediate fingertip control of negative pressure in the suction tube. This type suctioning is called "regulated pressure technique."[1]

2. Release the pressure on the vent immediately if you feel the catheter grabbing. The negative pressure in the suction tube may be pulling mucosa into the opening at the end of the tube.

3. Never attempt to control the suction stream by pinching or kinking the tube. This can cause a buildup of additional negative pressure in the range of 10-20 inches of Hg. (25-50 cm. of Hg.) at the catheter tip. When the obstruction is removed, the sudden burst of pressure may cause the catheter tip to jerk a section of mucosa loose or produce varying amounts of hemorrhage in this delicate tissue.

If respiratory intensive care can offer only one service, we believe the logical choice would be intelligently performed sterile suctioning of the patient.

Control of Infection

Infection is the grave danger tied in with airway maintenance. All personnel must fear infection and anything less than an exacting sterile gloved, absolutely clean material, technique should not be tolerated.

During the past 18 months we have experimented with chemical disinfecting, gas sterilizing and "disposables" and found them all good. We favor gas sterilizing, especially since we now have access to more rapid aeration technique (8 hours vs 24 hours). It keeps more of our supplies in service, not in the aeration chamber. Disposables have a lot in their favor but storage, disposing of them and expense tipped the scales in favor of gasing.

Respirators

These highly complex machines breathe for the apneic (control) and help the dyspneic (assist). They save countless lives and can kill with an alarming definiteness. They should be employed only with proper and knowledgeable supervision. Adjustment of controls is not for the uninitiated.

Respirators are used mainly on patients with tracheotomy and endotracheal tubes in place who need respiratory support (assisted and controlled). An emergency resuscitative device (Ambu bag, Elder valve, etc.) should be at the bedside of each patient, particularly those being "controlled," as a precautionary measure. These should be available so that a second attendant can "bag" the patient during the intervals of "disconnect" while suctioning is in progress.

Oxygen Toxicity

Loran Smith first suggested in 1899 that breathing pure oxygen over a long period might be injurious to man. Three quarters of a century later we are still unable to exactly pinpoint where the pathology is that makes oxygen toxicity potentially so lethal. It is a conglomeration of side effects, symptoms and pathological findings.

The patient suspected of undue exposure to oxygen may show evidence of atelectasis, pneumonitis, pulmonary edema, pulmonary congestion and consolidation. Parasthesias, visual disturbances, convulsions and other evidence of neurological involvement may be encountered. Substernal pain, various parasthesias, nausea, vomiting and general malaise are outstanding symptoms as well as diminishing ability to fill the lungs. Any of these complaints are cause for immediate concern.

Caution should be exercised when employing 100% oxygen. In most instances, it can be tolerated for approximately 50 hours without danger. If physicians and personnel will keep this in mind, it will allay some of their apprehension.

A 56% concentration (actually an oxygen partial pressure of 425 mm. Hg.) at one atmos-

pheric pressure is fairly safe to stay within.[2] The respirator setting should not be relied upon solely; the gas mixture must be checked frequently with an oximeter.

Another reliable test is arterial blood gas oxygen tension determination. If an arterial oxygen tension (PaO_2) of 150 mm. Hg. is not exceeded, the ground is quite safe.

Most of the time in severe lung disease and even in the case of badly traumatized lungs, an oxygen tension of 35 to 50 mm. Hg. is difficult to achieve despite the use of high concentrations of this gas.[3] These abnormal lungs seem to tolerate 100% oxygen remarkably well over a lengthy period.

Despite the inherent danger of using oxygen in this manner, one cannot afford to gamble on development of tissue hypoxia.

Sedation

Fear and hesitancy have no place in this area of treatment. The struggling, restless patient can only harm himself physically and in the event he is being supported by a respirator he most certainly will interfere with its proper functioning.

Each physician has a favorite drug or drugs for sedation purposes as well as his own plan of use. We prefer three plans; two involve morphine, the other Talwin and Valium.

Morphine is the most effective pain reliever and one of the best tranquilizers in the pharmacopoeia. Withholding this drug from respiratory patients and patients in severe pain, especially those on respirators, simply because it may depress the breathing center is hardly justifiable.

Plan A.—Depending upon the patient's size and weight and degree of restlessness, we slowly administer 10 to 15 mg. of morphine by vein initially. Usually this is followed at two hour intervals by 6 to 8 mg. doses also intravenously until the patient shows a smooth and steady quietude. The time interval may vary to every three hours or more.

Plan B.—Morphine 2 mg. is given every five minutes until quietude is established.[4] We continue on a two hour schedule using one half to one third the amount required to arrive at the initial state of tranquility.

Plan C.—For patients reacting to morphine with nausea, vomiting or hypotension, we give Talwin 30 mg. initially and alternate with Valium 10 mg. every two hours, both intravenously.

These drugs may induce quietude and relaxation but do not relieve pain and might very well cause it. They are to be used only while the patient is on the respirator. He may be unresponsive, conscious, and aware of the surroundings and any conversation. Complete paralysis is not necessary. If the decision is made to give muscle relaxants, the skill and experience of the physician in charge is of utmost importance.

When the relaxant drugs and morphine are given in repeated doses, constant and "arm's length away" supervision is necessary. The danger of "disconnect" is ever present.

Alarms

One of the prime causes of death in patients on respirator care is to be found in the "plumbing."[4] Disconnect or obstruction somewhere in the "patient-machine-pipe-linkage" are the bogeymen. An alarm warns of these happenings; however, none are so reliable that complete dependence can be put upon them.

In sounding off it creates quite a din which is usually somewhat disturbing to patients and personnel. To stop the noise attendants may turn it off and then fail to notify anyone or record their action with disastrous results.

"Arm's length away" supervision is best and most reliable.

Weaning

Weaning from a prolonged assisted or controlled period of respirator care is very difficult and calls for the physician's and therapist's patience, tact and knowledge. Considering that the respiratory center may have become "reset" at a $PaCO_2$ lower than the patient has previously been accustomed to and that chest wall receptors may also have adjusted to deep breathing under the influence of the respirator provides a little insight into the problem.

The intelligent approach calls for psychological readying of the patient for the coming events. The physician's intentions should be made known to the patient in detail; however, definite dates must be avoided.

Before the procedure is begun, the patient must exhibit a sufficient reserve of ventilatory effort. If this ability is lacking, he may rather quickly and dramatically lapse into shallow breathing and exhaust himself when weaning is attempted. As spontaneous ventilation diminishes, patchy atelectasis will develop, then hypoxia, followed by respiratory failure.

Some rules for weaning the patient include:

1. Be sure of a good blood gas picture while

the patient is still on the respirator at F102 0.4 (40% concentration).

2. Be sure he can breathe entirely on his own.

3. Be sure he can cough and swallow.

4. Be sure of a vital capacity of 1000 cc. in males and 850 cc. in females.

5. Be sure that the pulse is monitored; a rising rate spells developing hypoxia.

6. If possible, be sure the patient's blood gases are comparable off the respirator (15-20 minutes) to previously known adequate levels.

Adequate levels may not necessarily be those regarded as normal because the breathing of patients with emphysema may be under the control of what is referred to as "hypoxic drive"—low blood oxygen chemoreceptor stimulus to breathing where chronic hypercapnia has altered normal response to CO_2 in the respiratory center. Blood gas studies of these patients may show daily pCO_2 levels that are quite high (70-90 mm. Hg.).

After the patient has been found in condition for withdrawal from the respirator, we proceed in this manner: He is taken off the machine for three to five minutes every half hour and depending upon tolerance the length of "off periods" is increased as rapidly as possible. Repeated blood gas determinations guide every move during the procedure.

The physician who weans his patient by the trial and error method, neither checking the ventilatory status before, during or after the procedure, is like the diver who does not check his recompression tables. He will get away with it many times, but watch out!

Removal of Tracheal Breathing Tubes

Removing endotracheal tubes presents no great problem. Usually these are left in place no more than 72 hours and protective reflexes seldom are weakened to any considerable extent. If the patient is to be maintained on a respirator for a longer time, a tracheotomy should be performed which makes him heir to the problems of this device. We prefer the cuffed "trach" cannulae for the inflated cuff protects against aspiration difficulties.

The longer these devices have been in place the more tact, patience and knowledge is required to remove them. The spectre of aspiration of vomitus is always present and should be feared.

Easy stages are the answer, and suggestions include:

Step 1.—Considerably in advance acquaint the patient fully with what is intended and start him sucking on lollypops to stimulate the swallowing reflexes if they are absent or weak. In the younger age group an infant feeder filled with Coca-Cola or orange juice may be used.

Step 2.—Deflate the "trach" tube cuff and partially or completely obstruct the outer opening with the fingertip to determine if the patient can breathe past the deflated cuff. This closing off is referred to as "corking the tube."

At this point we usually remove the conventional cuffed tube and replace it with a cuffed fenestrated tube which affords unobstructed passage of the breath to the larynx and glottis.

With the conventional tube cuff deflated, the airstream is directed through the folds of wadded up, crinkled cuff substance thereby encountering varying degrees of obstruction and baffling. For the conscious patient talking is much easier with the fenestrated tube in place and cuff blown up than with the older type with cuff deflated.

Using either the fenestrated tube with cuff inflated or the conventional tube with cuff deflated, we proceed to the next step.

Step 3.—The patient's ability to get along without the cannula is tested. He has been depending upon intravenous solutions and gastric tube feedings and the swallow reflex has been dormant. The lollypops help this function to return.

The patient takes several sips of water which have been discolored with methylene blue dye, and as he swallows we watch his neck for deglutatory movements. The trachea is suctioned through the tracheotomy tube. Clear aspirate in the catheter and suction bottle indicates that the patient is able to swallow without aspiration. The tube is removed. When the aspirate has a bluish discoloration, removal of the tube must be postponed. It is taken out when the patient is able to swallow liquid without any of it getting into his trachea.

Conclusion

Intensive care facilities with particular emphasis upon cardiac, respiratory, medical and neonatal conditions are appearing every day with a myriad of problems arising from their proper and intelligent management. These adjuncts to patient care are springing up so rapidly that the supply of trained personnel to man them is far behind. Physicians and hospitals are finding it difficult to supply answers, academic and adminis-

trative, to the questions being asked concerning the problems.

In an attempt to provide answers to some of the more academic questions we have gathered together our ideas and those of others more experienced into this presentation. Some argument is offered for more frequent use of blood gas determinations; a plea is made for everlasting attention to cleanliness, and caution is urged concerning the dangers inherent in the less than gentle use of the seemingly benign suction catheter.

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The Race of Life

Nothing strikes one more in the race of life than to see how many give out in the first half of the course. 'Commencement day' always reminds me of the start for the Derby, when the beautiful high-bred three year-olds of the season are brought up for trial. That day is the start, and life is the race. Some of the best colts are pranced around, a few minutes each, to show their paces. Here we are at Cambridge and a class is first 'graduating.' Poor Harry! he was to have been there, but he has paid forfeit.

Ten years gone. First turn in the race. A few broken down; two or three bolted. 'Cassock,' a black colt, seems to be ahead of the rest. 'Meteor' has pulled up.

Twenty years. Second corner turned. 'Cassock' has dropped from the front, and 'Judex,' an iron-grey, has the lead. But look! how they have thinned out! Down flat—five, six, how many? They will not get up again in this race, be very sure!

Thirty years. Third corner turned. 'Dives,' bright sorrel, ridden by the fellow in a yellow jacket, begins to make play fast—is getting to be the favorite with many. But who is that other one that now shows close up to the front? Don't you remember the quiet brown colt 'Asteroid,' with the star in his forehead? That is he; he is one of the sort that lasts. 'Cassock' is now taking it easily in a gentle trot.

Forty years. More dropping off, but places much as before.

Fifty years. Race over. All that are on the course are coming in at a walk; no more running. Who is ahead? Ahead? What! and the winning-post a slab of white or gray stone standing out from that turf where there is no more jockeying, or straining for victory! Well, the world marks their places in its betting-book; but be sure that these matter very little, if they have run as well as they knew how!

Oliver Wendell Holmes (1809-1894)

Chronic Gastrointestinal Bleeding Secondary to Hiatus Hernia

Surgical Correction Using the Belsey Repair

William B. Berry, M.D.

The surgical treatment of hiatus hernia has changed dramatically in the past ten years. In years past a myriad of techniques, both transthoracic and transabdominal, have been employed. Unfortunately, long term follow-up studies have shown significant recurrence rates following most procedures.

When Mr. Ronald Belsey of Bristol, England presented his results of hiatus hernia repair in a series of over 1,000 patients followed over 15 years, his surgical management of this disease seemed worthy of emulation. A continuing pilgrimage of American surgeons to the Frenchay Hospital in Bristol has brought the Belsey technique to the United States, and several American centers have now confirmed the efficacy of this operation.[1-3]

Despite the availability of effective surgical treatment for symptomatic hiatus hernia, many internists and gastroenterologists recalling earlier disappointing results are still reluctant to advise operation even when indicated. The one clinical situation where physicians and surgeons usually advise operation is for the patient with anemia secondary to bleeding either from severe esophagitis or from an ulcer in the hiatal hernia.

The patient herein described is presented to demonstrate the effectiveness of the Belsey Mark IV repair in the treatment of a patient with a bleeding ulcer within a hiatus hernia.

Clinical Summary

A 67-year-old white man was admitted to the hospital with tarry stools. A hemoglobin determination taken in his physician's office was 7 grams percent. There was a significant gastroesophageal reflux symptom complex dating back over 13 years prior to admission and multiple barium swallows had confirmed the presence of a sliding hiatus hernia. Ten years prior to admission the patient was admitted to a New York hospital with severe regurgitation. Esophagoscopy was performed at that time and a cervical perforation sustained. The neck was drained and the patient subsequently discharged without further treatment.

Seven years prior to admission the patient was hospitalized again because of melena. Barium swallow showed an ulcer in the hiatus hernia. Because of the previous perforation, no endoscopy was carried out; the patient was treated with multiple transfusions and antacids, and discharged.

During the succeeding seven years, the patient slept sitting up, took large amounts of antacids daily and ate a progressively softer diet because of slowly increasing dysphagia.

After admission to the hospital, the patient received 2000 cc. of blood and the hemoglobin stabilized at 12 grams percent. A barium swallow demonstrated a large sliding hiatus hernia, an ulcer just above the gastroesophageal junction, and narrowing of the gullet in the same area (Fig. 1). The remainder of the gastrointestinal tract was normal. Esophagoscopy showed severe esophagitis with mucosal erosions, gross bleeding and a narrowed distal esophagus; dilatation was carried out up to a 40 French bougie.

Refractory symptomatic reflux with early stricture formation and significant bleeding were indications for surgery. After a course of pulmonary physiotherapy, a standard Belsey Mark IV hernia repair was carried out through the left sixth interspace.* The narrowed esophagus was dilated up to a 46 French bougie per oral passage of Hurst bougies. Since there was severe periesophageal inflammation with foreshortening of the gullet it was nec-



Fig. 1.—Preoperative barium swallow demonstrating a large sliding hiatus hernia. Note the posteriorly located ulcer crater and significant esophageal stenosis just cephaled to the ulcer.

*For a technical description of Mr. Belsey's operation the reader is referred to the excellent account by Skinner and Belsey, J. Thorac. Cardiovasc. Surg. 53:33, 1967.

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Fig. 2.—Postoperative barium swallow showing a completely normal appearing distal esophagus. There is a significant segment of intra-abdominal esophagus and the normal angle of entry of the esophagus into the stomach has been restored. There is no suggestion of esophageal stricture.

essary to free the esophagus completely up to the aortic arch. The patient tolerated operation without incident and had an uneventful convalescence. He was able to consume a regular diet and to lie flat after eating with no symptoms. A barium swallow was performed 14 days after operation and showed complete healing of the ulcer, restoration of the intra-abdominal segment of esophagus and a normal angle of entry of the esophagus into the stomach (Fig. 2). Cine studies confirmed the absence of any ulcer and showed almost normal motility of the lower gullet.

Discussion

The vast majority of patients with symptomatic hiatus hernia show evidence of gastroesophageal reflux. A smaller but significant number of patients present with pulmonary complications secondary to aspiration of refluxed gastric contents. In each of these groups, the primary etiologic factor is an incompetent cardial sphincter mechanism. Proper cardial reconstruction by the Belsey repair or with similar techniques has proven curative in over 90% of patients with long follow-up periods.[1-5]

The surgical treatment of bleeding hiatus hernia has been ill-defined because of two basic reasons. First, bleeding is the least common presenting symptom of hiatus hernia. Second and more important, the etiology of a bleeding ulcer at the gastroesophageal junction has often been considered similar to that of bleeding ulcers in the gastroduodenal area. This approach has led some surgeons to believe that simply correcting the anatomic defect is inadequate treatment. They have employed a "physiologic" or "balanced" hiatus hernia operation consisting of pyloroplasty and vagotomy in addition to the herniorrhaphy with the expectation that the diminished acid production and more rapid gastric drainage will result in a reduction of acid in the esophagus.[6,7]

The technical ease with which pyloroplasty and vagotomy can be performed has encouraged its use. Unfortunately, there is a significant incidence of "dumping" symptoms following pyloroplasty and of intestinal dyskinesias after truncal vagotomy. The risk of these complications is low enough to warrant their application in the treatment of the peptic ulcer diathesis, and certainly pyloroplasty-vagotomy is a proven effective operation for duodenal or pyloric ulcer.

It is my view that in the management of ulcer at the cardioesophageal junction secondary to dislocated gastric juice, with normal gastric acid production, the crux of the problem is basically anatomic; in other words, normal amounts of gastric acid are to be desired in the stomach but not in the esophagus. The patient herein reported demonstrates that proper reconstruction of the gastroesophageal junction which prevents reflux of gastric juice into the esophagus results in a return of normal esophageal motility, healing of esophagitis, and most importantly, an asymptomatic patient.

Summary

The Belsey technique of hiatus hernia repair was employed in a patient with severe symptoms secondary to esophagitis and a bleeding ulcer at the gastroesophageal junction. Postoperatively the patient was asymptomatic, and barium cine studies 14 days after operation showed complete healing of the ulcer and almost normal motility. It is suggested that the "balanced" operation may not be indicated in the treatment of these complications and that precise cardial reconstruction is the operation of choice.

The author was Senior Registrar in Cardiothoracic Surgery at the Frenchay Hospital in Bristol, England, 1966-1967, and is grateful to Mr. Ronald Belsey's tutelage in esophageal diseases.

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Comparison of Ethacrynic Acid and Hydrochlorothiazide in Hypertension

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The introduction of chlorothiazide in 1957[1] marked an important advance in the treatment of hypertension. More recently ethacrynic acid[2] and furosemide[3] have been added to the list of oral diuretics. Ethacrynic acid is a more potent natriuretic agent than thiazide derivatives,[4-6] but its sodium depleting effect in the treatment of hypertension has received relatively little attention.[7-9] It seemed most desirable to compare the action of ethacrynic acid (EA) with hydrochlorothiazide (HCT), which probably is the most commonly used diuretic in hypertensive patients.

Methods

Table 1 shows the clinical data on the 12 nonedematous, hypertensive patients selected for the investigation. The duration of the study was 14 weeks for each subject. The same diet and antihypertensive drugs (with the exception of the diuretics) that they were taking previously were continued during the period of study. Ethacrynic acid 50 mg., hydrochlorothiazide 50 mg., and placebo capsules were prepared so that all three looked alike. The following design was used in all subjects:

Period 1. Two weeks of placebo therapy.
Period 2. Four weeks of either EA or HCT, 50 mg. twice a day.
Period 3. Two weeks of placebo therapy.
Period 4. Four weeks of therapy with whichever compound was not used in Period 2.
Period 5. Two weeks of placebo therapy.

The design was not completely "double blind" in that the periods on placebo were known to the physician, although not to the patient. However, the physician did not know which of the compounds under study he used during the two periods of active diuretic therapy. The assignment of the drug was established by a randomized technique with seven patients receiving EA first, and five HCT first. Blood chemistries (FBS, BUN, creatinine, sodium, potassium, chloride, CO_2CP and uric acid) and urinalysis were performed at the end of each of the five periods. A blood sugar two hours post 100 Gm. of glucose was obtained at the end of the first two weeks of placebo therapy and after each one of the two periods under active drug therapy.

The results were analyzed by a randomized block design[10] performed first for the three placebo periods of each of the 12 indices, with each patient treated as his own block. When there were no significant differences in the placebo periods, an average placebo (P) for each patient was calculated, and then a similar block design was done between EA, HCT and P. When significant differences were noted in this analysis, Tukey's test[11] for multiple comparisons was done to locate these differences. A program written for the IBM 7090 computer facilitated the processing of the data. With both techniques, a p value of .05 or less was considered to indicate that significant differences were present.

Results

Table 2 summarizes the mean values for the indices which we investigated.

Blood Pressure and Weight

In the recumbent position the average mean blood pressure (MBP) estimated from the diastolic plus 1/3 the pulse pressure, although as much as 10 mm. Hg. lower on active drug, did not achieve significant decrease from that on placebo. In the erect position a significant difference was noted between HCT and P (10.7 mm. Hg.). HCT and EA periods did not differ between themselves despite the fact that the decline on HCT had been statistically significant, and the slightly lesser fall with EA had not.

The mean body weight in pounds showed a significant difference in the three placebo periods and subsequently in the analysis of all five periods.

Table 1.—Clinical Data.

Patient	Age	Diagnosis	Previous Treatment Continued During Study
1	51	Benign Essential HCVD	Reserpine 0.25 mg./d
2	71	Benign Essential HCVD	Reserpine 0.25 mg./d
3	56	Benign Essential HCVD	AMD 1 Gm./d
4	55	Benign Essential HCVD	
5	46	Malignant Essential HCVD Diabetes Mellitus	AMD 1 Gm./d
6	55	Benign Essential HCVD	AMD 1 Gm./d Digoxin 0.5 mg./d
7	69	Benign Essential HCVD Diabetes Mellitus	Reserpine 0.25 mg./d AMD 250 mg./d Digoxin 0.5 mg./d
8	61	Essential HCVD	Reserpine 0.25 mg./d Digitoxin 0.1 mg./d
9	72	Benign Essential HCVD	Reserpine 0.25 mg./d AMD 500 mg./d Digitoxin 0.1 mg./d
10	46	Polycystic Kidney Hypertension	AMD 1 Gm./d
11	48	Benign Essential HCVD	Reserpine 0.25 mg./d AMD 1 Gm./d
12	46	Benign Essential HCVD Idiopathic Rhabdomyolysis	Reserpine 0.25 mg./d

Abbreviations:
HCVD = hypertensive cardiovascular disease
AMD = alphamethyldopa

There was a significant difference between body weight after four weeks of drug therapy when compared with the baseline placebo period (4.4 lbs. after EA and 4.5 lbs. after HCT), as well as between the drugs and the second placebo period, (2.9 lbs. after EA and 3.0 lbs. after HCT). No variation between EA and HCT was observed.

Serum Electrolytes

The serum sodium showed no significant changes between placebo or active drugs. HCT did cause a significant reduction of 6.3 mEq/L of the serum chloride. No difference was noted between EA and P. EA and HCT also did not differ significantly.

The average serum potassium decreased significantly during the drug periods as compared with placebo. The reduction in the mean values was 0.4 mEq/L greater with HCT than with EA, and this difference was statistically significant.

The mean CO_2 combining power exhibited a significant increase between EA and P and between HCT and P, but no significant difference between the two drugs was found.

BUN, Serum Creatinine and Serum Uric Acid

The mean BUN significantly rose 2.5 mg./100 ml. with EA and 3.2 mg./100 ml. with HCT. The difference between the two drugs was not significant. The serum creatinine remained unchanged throughout the entire period of observation.

The two drugs produced a significant elevation in the serum uric acid. The change was 1.97 mg./100 ml. after EA and 1.88 mg./100 ml. after HCT. There was no difference between EA and HCT.

Carbohydrate Metabolism

The FBS appeared to rise during administration of both drugs, but these differences were not statistically significant from placebo. However, a significant variation was encountered among the three placebo periods, and in the analysis of all five periods the FBS during HCT was higher than the placebo periods preceding it, while in the placebo period following HCT, the FBS was higher than in the other placebo periods. This probably is related to a carryover effect of the HCT. FBS with EA was also higher than the first and second placebo periods, but not to a significant level. The two hour postprandial blood sugar with HCT was significantly higher than P. With EA, a slightly lesser rise in two hour postprandial blood sugar was not significant, but again the difference between the two drugs did not achieve a significant level.

Side Effects

Throughout the study, hemoglobin, WBC, urinalysis, serum cholesterol, serum calcium and phosphorus, bilirubin, serum proteins, serum lactic dehydrogenase, serum glutamic oxaloacetic trans-

Table 2.—Mean Values for the Indices Investigated in 12 Patients.

	P	EA	HCT	EA,HCT,P	Tukey t Test EA vs P	HCT vs P	EA vs HCT
MBP Lying	132.5	129.3	122.8	NS	NS	NS	NS
MBP Standing	126.8	122.9	115.1	.05	NS	.05	NS
Body Weight	187.7	184.8	184.7	.01		See Text	
Sodium	138.4	138.8	135.8	NS	NS	NS	NS
Potassium	4.00	3.85	3.45	.01	NS	.05	.05
Chloride	101.8	98.7	95.5	.01	NS	.05	NS
CO_2	26.7	29.6	30.2	.01	.05	.05	NS
BUN	16.0	18.4	19.2	.05	.05	.05	NS
Serum Creatinine	1.50	1.50	1.59	NS	NS	NS	NS
Uric Acid	6.57	8.54	8.40	.01	.05	.05	NS
FBS	109.9	116.2	123.7	NS	NS	NS	NS
2 hr. post 100 Gm. glucose	166.6*	182.6	189.2	.05	NS	.05	NS

* One placebo period

Abbreviations:
EA = ethacrynic acid
P = means of three placebo periods
MBP = mean blood pressure
HCT = hydrochlorothiazide
FBS = fasting blood sugar
NS = not significant

aminase and alkaline phosphatase remained normal in all the subjects.

With EA two patients complained of nausea and anorexia and one of constipation. One patient developed dyspnea on exertion and paroxysmal nocturnal dyspnea during each placebo period. One patient presented with symptoms and signs of acute gouty arthritis while on the placebo period that followed HCT.

Discussion

Although the decline in blood pressure with diuretics achieved statistical significance only in the erect position in our study, the results are in general agreement with the mild antihypertensive effect of thiazide, which has been noted in ambulatory, nonedematous hypertensive patients. The failure of the fall in the recumbent position to achieve statistical significance is probably related to several factors. At best when a design which accounts for placebo effects is employed, the thiazide response is modest[12] and with a small sample such as used here, the between patient variability may be too great to reveal the difference even with the use of a randomized block or similar techniques of analysis. Moreover, most of these patients continued to receive their antihypertensive compounds, which may have partially masked the diuretic response, since this response plus that of other drugs may not be entirely additive.[13] In any case it was noteworthy that EA which is a more potent natriuretic had essentially a similar antihypertensive effect to that of HCT, which confirms previous observations.[7,9]

No serious electrolyte or acid-base imbalance occurred, although HCT caused a significant fall in serum chloride. The major difference noted between EA and HCT was a slightly greater fall in the serum K with thiazide. Both drugs seemed to produce a trend to hypokalemic alkalosis.

Hyperuricemia, usually asymptomatic, is usually seen with therapy with thiazide or ethacrynic acid. Our study indicates that the effect of both drugs on uric acid levels is essentially the same and from this point of view there is little to choose between them.

The hyperglycemic effect of the thiazide drugs has been well established[14] although the mechanisms by which this occurs are not clear. The two drugs produced similar effects on carbohydrate tolerance, although—as indicated by the statistical peculiarity in this relatively small sample certain changes were significantly different from placebo with HCT but not with EA although the two were not different from each other—the data suggest a slightly lesser effect of EA. This was further reflected in the carryover effect of HCT into the post-drug placebo effect which may indicate a slightly longer duration of the thiazide effect.

Conclusion

The study, although performed on a small group of patients and subject to limitations in its broader application, has the advantages of a well controlled, essentially "double blind" examination in assessing the relative efficacies of these two agents over a short term period. It would suggest that from the clinical point of view, in hypertensive patients with mild to moderate disease and no edema, EA has no significant advantages over HCT. In fact, the two compounds would seem to be interchangeable, with the exception that EA

may have a slightly lesser adverse effect on glucose tolerance and HCT a slightly greater effect on blood pressure. Whether their minor differences would be exaggerated during long term use still requires study.

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Responsibilities Delegated to Medicine; Sans Rights

The delicate balance between rights and responsibilities—that distinguishing, characteristic of all good government—is seemingly out of adjustment in our country.

One hears much of the "rights" of underprivileged minorities, set apart by creed, color or economic condition, but with no mention of corresponding responsibilities.

One watches the parades of protesters, some orderly and some not, some with an element of justice in their demands and some with no pretense to reasonableness, some that begin with declarations of peaceful intent that degenerate into unreasoning, riotous mobs.

The television cameras diligently and vividly record the more dramatic scenes from rioting and looting, with very special emphasis reserved for those so unfortunate as to stumble under a policeman's truncheon or the butt of a soldier's rifle.

The ready sympathy of the average American viewer finds itself swinging away from the uniformed enforcer of law and order and to the unhappy stumbler. Naturally, never knowing where is the next target, no TV camera yet has caught a policeman or fireman, at his job of earning a living, dropping with a sniper's bullet in his brain. For men in uniform, their responsibilities are obvious; their rights aren't so evident.

The delicate balance between rights and responsibilities, so necessary to all good government, is out of adjustment in our country.

Every business, every profession, every segment of American society had best look to its own "rights" in a rising tide of delegated responsibilities.

Medicine is no exception.

Hyperglycemic Hyperosmolar Nonketotic Coma Associated with Corticosteroid Therapy

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Hyperglycemic hyperosmolar nonketotic coma is a condition characterized by coma or semicoma with a blood sugar level in the range of 600 mg. to 3000 mg. per 100 ml. in the absence of ketoacidosis. Although fewer than 100 cases have been reported in the literature, recent reports suggest that this syndrome is being recognized with increasing frequency both in mild maturity onset diabetes and in nondiabetics. Recently, we treated a patient who presented with this syndrome while she was receiving large doses of dexamethasone.

Case Report

A 46-year-old Caucasian woman presented to the admission room on December 16, 1968 in a stuporous state. In September 1968, a left lung mass was found to be undifferentiated carcinoma and was irradiated. On October 29, 1968 she was readmitted, complaining of severe headaches. Papilledema was present. A diagnosis of cerebral metastasis was made on the basis of the severe headache, papilledema, positive brain scan and abnormal carotid arteriogram. Treatment with dexamethasone 20 mg. per day was initiated immediately upon admission; the patient's condition improved within 48 hours, with disappearance of the papilledema and abatement of the severe headache. Radiotherapy to the brain was begun on November 18, 1968. A routine fasting blood sugar determination nine days after initiation of treatment with dexamethasone was 128 mg. per 100 ml. (Autoanalyzer method). Several determinations of fasting blood sugar during her prior admission had all been normal. Five days prior to the final admission gradual reduction of the daily dose of dexamethasone was begun. On the day before admission she took 12.25 mg. With reduction of dosage, she noted marked loss of strength and generalized muscular pain and stiffness. Because of painful oral moniliasis, her fluid intake had been poor for four or five days before admission. Thirty-six hours prior to admission, her husband noticed that her speech was becoming incoherent; a few hours prior to admission she began to hallucinate and became incontinent of urine. There was no past history or family history of diabetes.

Physical examination revealed a wasted, weak, disoriented woman with cold and cyanotic extremities. Oral temperature was 101F; pulse 120 per minute and regular; blood pressure 120/90 mm. Hg.; respirations were 20 per minute and of normal depth. Papilledema was not found. The oral mucosa was partially coated with white patchy material. The muscles were generally tender and the skin was dry with poor turgor. A 2 x 3 cm. firm mass was present on the right anterior chest wall. On admission, it was thought that the dehydration and stupor were related to her brain metastasis and reduction in the corticosteroid dose. She was treated with 1000 ml. 5% dextrose in water and 40 mg. of dexamethasone intravenously. Several hours later, the admission blood sugar was reported to be 900 mg. per 100 ml. and a diagnosis of hyperosmolar nonketotic coma was made. Additional significant laboratory data included a blood urea nitrogen of 128 mg. per 100 ml., serum sodium of 156 mEq/L, potassium of 3.9 mEq/L, chloride of 108 mEq/L, and carbon dioxide of 20 mM/L. Urinalysis revealed marked glycosuria without ketonuria. Treatment with insulin and hypotonic fluids was begun. Over the next nine hours she received 220 units of regular insulin, 1100 ml. of 2½% dextrose in ½ normal saline, 825 ml. of 5% dextrose in water and 1450 ml. of normal saline. The blood sugar had fallen to 142 mg. per 100 ml. and the patient was awake but confused.

About 24 hours after admission, the right foot was noted to be cold and pulseless. A retrograde aortogram via the left femoral artery demonstrated complete obstruction of the right common iliac artery. An endarterectomy was performed under local anesthesia. Postoperatively the patient's condition slowly deteriorated. There was no significant rise in blood sugar and she required no further insulin therapy. Approximately 18 hours after surgery she quietly expired.

Autopsy revealed a small tumor mass in the body of the pancreas with metastatic deposits in the liver and brain. The islets of Langerhans in the uninvolved areas of the pancreas were unremarkable in appearance. The origin of the tumor was not established although either the lung or pancreas was considered likely.

Discussion

Credit for the first description of hyperglycemic, hyperosmotic nonketotic coma as a clinical syndrome is generally given to Sament and Schwartz.[1] There are, however, case reports of this entity dating back to 1951.[2] Approximately 60 cases have been reported since 1957.[3-9]

The syndrome is characterized by an extremely high blood sugar level and trace or absent ketonemia and ketonuria. Presenting signs and symptoms usually result from a combination of profound dehydration (i.e., hypotension, shock), and neurological manifestations ranging from stupor and coma to focal and generalized seizures unresponsive to anticonvulsant medications.[3] Often a history of poor oral intake or polydipsia and polyuria associated with gradual onset of lethargy and stupor can be obtained. Marked dehydration is usually apparent on physical examination. Laboratory studies commonly reveal

elevated blood urea nitrogen and serum sodium values, glycosuria and trace or absent ketonuria in addition to the characteristic hyperglycemia.

Most of the reported cases managed successfully were treated with insulin and rapid infusion of hypotonic fluids, such as ½ normal saline or 5% dextrose in water.[4] Complications reported in patients with this syndrome include acute renal failure[5,6] and peripheral vascular thrombosis.[6,7] In cases coming to autopsy, acute pancreatitis[5,6,8,9] and fatty degeneration of the liver[4,5,9] have been found in several instances. One case of carcinoma of the pancreas has been reported.[7] Survivors usually manifest a mild diabetic state often controlled by diet with or without oral hypoglycemic agents.[6]

The factors responsible for the exceedingly high blood sugar without ketosis are not known, but various authors have ascribed the dissociation to one or more of the following: the antiketogenic effect of marked hyperglycemia; the suppression of ketone body formation by enhanced endogenous adrenocorticoid release or exogenous corticosteroid therapy, and the capacity for some insulin secretion.[10,11]

This syndrome also has been reported to occur in nondiabetic individuals who had sustained severe burns,[12,13] were undergoing peritoneal dialysis[14] or hemodialysis,[15] or were being treated with large doses of corticosteroids.[16,17]

The present case again illustrates that patients with disseminated neoplastic disease may have complications of their illness which are not the direct result of metastatic growth interfering with the function of a vital organ and which, if treated promptly, may be reversed. This patient probably developed hyperglycemic hyperosmolar nonketotic coma as a result of treatment with large doses of corticosteroid drug, coupled with poor fluid intake. The assumption that her neurologic symptoms were due to cerebral metastasis delayed proper treatment by several hours and may have been responsible, at least in part, for the fatal result.

This case demonstrates the need for frequent determination of the blood sugar levels of patients being treated with large doses of corticosteroids. In such instances, the patient's family should be instructed to report immediately any symptoms such as lethargy, confusion, polydipsia or polyuria.

Summary

A patient receiving large doses of dexamethasone for the control of cerebral edema secondary to cerebral metastasis developed hyperosmolar, hyperglycemic nonketotic coma. Because her neurological symptoms were attributed to a direct effect of cerebral metastasis, the proper diagnosis was delayed several hours, possibly contributing to the fatal outcome. The case is reported to call attention to this unusual side effect of massive corticosteroid administration and to again emphasize that not all signs and symptoms in patients with neoplastic disease are attributable to the direct effects of neoplastic growth.

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▶ Dr. Schlang, 3000 Medical Park Drive, Tampa 33612.

An Appeal From Blue Shield

William J. Dean, M.D.

The Blue Cross-Blue Shield Federal Employee Program, unlike Medicare and CHAMPUS, is a true contract of health insurance in which the Blue Plans assume the risk of loss in proportion to the number of federal employees in their service area.

For some time, the Blue Plans have been urged to include additional outpatient benefits for diagnostic x-ray and laboratory examinations in hope of avoiding undue inpatient care. In January of 1968, these benefits were shifted from the Supplemental (major medical) to the Basic Federal Employee Program. When these changes were effected, the program nationally had uncommitted reserves of $71 million; however, projections indicate that at the end of 1971 we will not only have exhausted the reserve but incurred a deficit approaching $75 million.

There is sufficient evidence to conclude that this financial dilemma has been caused primarily by these unlimited benefits, and secondarily by the usual, customary and reasonable payment program. Statistics show that about 70% of the x-ray and laboratory claims are rendered in the physician's office. From 1969 to 1970 alone, outpatient radiology services increased 25.4% in number of claims and 34.9% in dollars, while outpatient laboratory services rose 33.6% in quantity of claims and 41.2% in dollars. During this tremendous increase in outpatient utilization, inpatient admission rates have remained practically static. In 1967, the admission rate per 1,000 contracts was 398 and in 1970 it was 395.

Careful interpretation is always required for Florida utilization statistics because of our seasonal visitors, but, in this case, the Florida utilization statistics are similar to the national pattern. The figures I have quoted herein are national figures.

The current monthly premium for the federal employee family contract is $47.91 with most of this paid by employee payroll deduction. It would require a rate increase in excess of 50% to put this program back on a stable financial basis. Our Blue Plan leaders feel that an increase of this character is undesirable and not negotiable. We have, therefore, determined that three alternate steps are necessary:

1. There must be a "belt tightening" of our administrative procedures.
2. There must be a reduction in benefits for outpatient examinations.
3. An urgent appeal must be made to the private health sector to curtail utilization to every extent possible.

Our national offices conducted an informational meeting on this subject on July 31 which was attended by leaders of different specialty groups. At the time this article went to press, the group had scheduled another meeting for September 22, and it considers the problem sufficiently serious to consider periodic meetings in the future. Blue Shield has learned something—anytime there is an increase in benefits, there is an increase in utilization.

This federal employee group contract is the largest underwritten in the private sector, consisting of over 5 million subscribers including 135 thousand in Florida. This very serious utilization trend could not have developed at a more unfortunate time. I am sure it can be recognized that it adds fuel to the fire of those detractors of the private health system who will use this development to advocate that additional controls on medical care delivery are required.

A statement on this subject has been sent to all physicians in Florida. We urgently need the help of every physician to demonstrate a turnaround in this utilization trend. This will show that the private sector is able to react quickly and in a positive manner in this most complex area of health care financing.

Dr. Dean is Chairman, Blue Shield Contracts Committee. Member of the Blue Shield Board of Directors and President-Elect of the Florida Medical Association.

▶ Dr. Dean, 1515 - 4th Street, N., St. Petersburg 33704.



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Dosage: The maximal tolerated dosage is usu ally the most effective. For most adult patient this will be four to six 15-mg. tablets daily i divided doses. In severe conditions as many a two tablets four to six times daily may be re quired. Pro-Banthine is supplied as tablets of 1 mg., as prolonged-acting tablets of 30 mg. and for parenteral use, as serum-type vials of 30 mg The parenteral dose should be adjusted to th patient's requirement and may be up to 30 mg or more every six hours, intramuscularly or ir travenously.

18-

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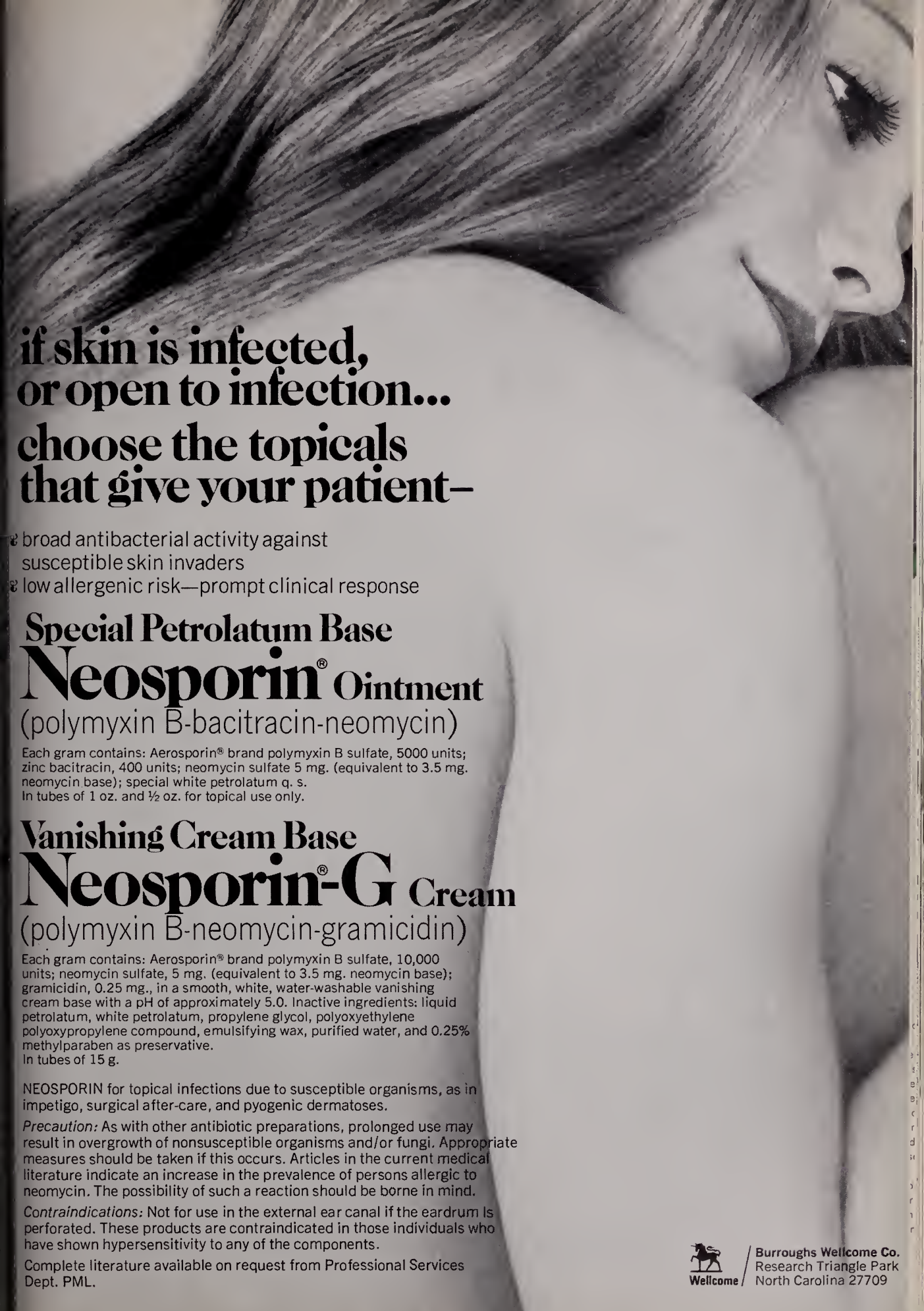
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NEOSPORIN for topical infections due to susceptible organisms, as in impetigo, surgical after-care, and pyogenic dermatoses.

Precaution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

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See full prescribing information on opposite page.

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Contraindications: PERITRATE SA Sustained Action (pentaerythritol tetranitrate) 80 mg is contraindicated in patients who have a history of sensitivity to the drug.
Warning: Data supporting the use of PERITRATE (pentaerythritol tetranitrate) during the early days of the acute phase of myocardial infarction (the period during which clinical and laboratory findings are unstable) are insufficient to establish safety. This drug can act as a physiological antagonist to norepinephrine, acetylcholine, histamine, and many other agents.
Precautions: Should be used with caution in patients who have glaucoma. Tolerance to this drug, and cross-tolerance to other nitrites and nitrates may occur.
Adverse Reactions: Side effects reported to date have been predominantly related to rash (which requires discontinuation of medication) and headache and gastrointestinal distress, which are usually mild and transient with continuation of medication. In some cases severe persistent headaches may occur. In addition, the following adverse reactions to nitrates such as pentaerythritol tetranitrate have been reported in the literature: (a) Cutaneous vasodilatation with flushing. (b) Transient episodes of dizziness and weakness, as well as other signs of cerebral ischemia associated with postural hypotension, may occasionally develop. (c) An occasional individual exhibits marked sensitivity to the hypotensive effects of nitrite and severe responses (nausea, vomiting, weakness, restlessness, pallor, perspiration and collapse) can occur, even with the usual therapeutic doses. Alcohol may enhance this effect.
Dosage: PERITRATE SA Sustained Action (pentaerythritol tetranitrate) 80 mg (b.i.d. on an empty stomach), 1 tablet immediately on arising and 1 tablet 12 hours later.
Supplied: PERITRATE SA Sustained Action (pentaerythritol tetranitrate) 80 mg, bottles of 100 and 1000 tablets.
Additional Dosage Forms: PERITRATE (pentaerythritol tetranitrate) 10 mg and 20 mg tablets with or without phenobarbital 15 mg, bottles of 100 and 1000 tablets. PERITRATE with Phenobarbital SA Sustained Action—pentaerythritol tetranitrate 80 mg and phenobarbital 45 mg, bottles of 100 and 1000 tablets.
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Adults: 225 mg. q.i.d.

Children: 10 mg./lb./day in 4 equally divided doses.

The recommended dosage for Versapen (hetacillin) does not depend on site of infection, but on severity. Therefore, in mild-to-moderate infections due to susceptible organisms, you can prescribe Versapen (hetacillin) for the genitourinary tract at the same dose recommended for the respiratory tract. Or any other infection site.

2/ A low dosage for mild-to-moderate genitourinary infections due to susceptible organisms.

3/ A low dosage for mild-to-moderate pediatric infections due to susceptible organisms.

4/ Parenteral forms remain stable up to six hours after reconstitution with sterile water longer than any ampicillin.

5/ Lower patient cost. Inherent with lower dosages for many indications is the benefit of lower cost to the patient. And, in these many instances, Versapen is significantly more economical to the patient than ampicillin brands.

Side Effects. As with any penicillin serious allergic reactions, including anaphylaxis, can occur. The type of side effects most frequently encountered are the same as with ampicillin, namely: diarrhea, loose stools, rash and nausea.

Please see next page for brief summary of prescribing information.

BRISTOL

Versapen® (hetacillin)
Versapen®-K (potassium hetacillin)

■ Versatile dosage forms...for all patients...of all ages. ■ A uniform adult and a uniform pediatric dosage for all susceptible mild-to-moderate infections...respiratory, genitourinary, G.I., skin and soft tissue. Recommended dosage varies with severity, not site, of infection. ■ Parenteral forms remain stable up to six hours after reconstitution with sterile water ...longer than any ampicillin. ■ Economical therapy.

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(A) 12/28/70
For complete information, consult Official Package Circular.

Actions: Hetacillin provides bactericidal levels of ampicillin but has no antibacterial activity itself. It hydralyzes to ampicillin and has a half-life of 20 minutes at pH 7.1.

Indications: Hetacillin is indicated in the treatment of susceptible strains of the following organisms in the diseases listed. Bacteriology studies to determine the causative organisms and their sensitivity should be performed. Therapy may be instituted prior to obtaining results of sensitivity testing.

Group A beta-hemolytic Streptococcus: Tonsillitis, pharyngitis, otitis media, skin and soft tissue infections.

Diplococcus pneumoniae: Broncho- and lobar pneumonia, otitis media.

Nonpenicillinase-producing *Staphylococcus aureus:* skin and soft tissue infections, otitis media.

H. influenzae: Branchitis and bronchopneumonia.

Escherichia coli: Cystitis, pyelonephritis, prostatitis/urethritis, skin and soft tissue infections.

Proteus mirabilis: Cystitis, pyelonephritis, skin and soft tissue infections.

Enterococcus (*Streptococcus faecalis*): Cystitis, pyelonephritis, prostatitis/urethritis.

Shigella species: Shigellasis.

Salmonella species: Salmonellasis (parenteral only).

Indicated surgical procedures should be performed.

Use parenteral drug only in severe infections or in patients unable to take oral medications.

Contraindications: A history of allergic reactions to penicillins or lidocaine.

Warning: Anaphylaxis may occur, particularly after parenteral administration and especially in patients with an allergic diathesis. Check for a history of allergy to penicillins, cephalosporins or other allergens. If an allergic or anaphylactic reaction occurs, discontinue hetacillin and institute appropriate treatment.

Usage in Pregnancy: Safety for use in pregnancy is not established.

Precautions: Mycotic or bacterial superinfections may occur. Assess renal, hepatic and hematopoietic function periodically during long-term therapy. Because intravenous administration of potassium hetacillin in doses in excess of 5 mg./Kg. has been noted to enhance the vasopressor effect of epinephrine in dogs, precautions should be taken with patients receiving epinephrine concurrently.

Adverse Reactions: Untoward reactions include: Glossitis, stomatitis, black "hairy" tongue, nausea, vomiting and diarrhea, skin rashes, urticaria, exfoliative dermatitis, erythema multiforme and anaphylaxis (usually with parenteral administration). Anemia, thrombocytapenia, thrombocytopenic purpura, eosinophilia, leukopenia, and agranulocytasis have been noted, are usually reversible and are believed to be hypersensitivity phenomena.

Elevations in one or more liver function tests have been reported without any evidence of hepatic toxicity.

Local reactions: Thrombophlebitis at the site of intravenous injection has been reported.

Usual Dosage: Patients weighing 90 lbs. or more: 225 mg. q.i.d. Patients weighing less than 90 lbs.: 2.5 mg./lb. q.i.d.

Group A beta-hemolytic streptococcal infections should be treated for at least 10 days. Administer oral preparations in a fasting state to insure maximum absorption.

Recommended dosages (expressed in terms of ampicillin activity) in susceptible mild-to-moderate infections*

Versapen® (hetacillin) **112.5 mg.**	Chewable Tablets	*Usual pediatric dosage:* 10 mg./lb./day in 4 equally divided doses. For a 45 lb. child: one tablet *q.i.d.*
	Oral Suspension (112.5 mg./5 ml.)	*Usual pediatric dosage:* 10 mg./lb./day in 4 equally divided doses. For a 45 lb. child: 1 tsp. *q.i.d.* Available in 40 ml., 80 ml., and new 100 ml. bottles.
	Pediatric Drops (112.5 mg./ml.)	*Usual dosage:* 10 mg./lb./day in 4 equally divided doses. For a 10 lb. child: ¼ dropper *q.i.d.* Available in 10 ml. bottles.
Versapen®-K (potassium hetacillin) **225 mg.**	Capsules	*Usual adult dosage:* one 225 mg. capsule *q.i.d.*
	I.V. I.M. with Lidocaine HCl (20 mg./vial)	*For patients weighing 90 lbs. or more:* 225 mg. *q.i.d.* *For patients weighing less than 90 lbs.:* 10 mg./lb./day in 4 equally divided doses.

*For severe infections—Adults: 450 mg. *q.i.d.* Children up to 90 lbs.: 20 mg./lb./day in 4 equally divided doses. Very serious infections may require very high doses and prolonged therapy. *Note:* Versapen® has been issued Patent No. 3198[illegible]

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Contraindications: Concurrently with MAO inhibitors, in patients hypersensitive to this drug; in emotionally unstable patients susceptible to drug abuse.

Warning: Although generally safer than the amphetamines, use with great caution in patients with severe hypertension or severe cardiovascular disease. Do not use during first trimester of pregnancy unless potential benefits outweigh potential risks.

Adverse Reactions: Rarely severe enough to require discontinuation of therapy, unpleasant symptoms with diethylpropion hydrochloride have been reported to occur in relatively low incidence. As is characteristic of sympathomimetic agents, it may occasionally cause *CNS effects* such as insomnia, nervousness, dizziness, anxiety, and jitteriness. In contrast, CNS depression has been reported. In a few epileptics an increase in convulsive episodes has been reported. Sympathomimetic *cardiovascular effects* reported include ones such as tachycardia, precordial pain, arrhythmia, palpitation, and increased blood pressure. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride; this was an isolated experience, which has not been reported by others. *Allergic phenomena* reported include such conditions as rash, urticaria, ecchymosis, and erythema. *Gastrointestinal effects* such as diarrhea, constipation, nausea, vomiting, and abdominal discomfort have been reported. Specific reports on the hematopoietic system include two each of bone marrow depression, agranulocytosis, and leukopenia. A variety of miscellaneous adverse reactions have been reported by physicians. These include complaints such as dry mouth, headache, dyspnea, menstrual upset, hair loss, muscle pain, decreased libido, dysuria, and polyuria.

Convenience of two dosage forms: TEPANIL Ten-tab tablets: One 75 mg. tablet daily, swallowed whole, in midmorning (10 a.m.); TEPANIL: One 25 mg. tablet three times daily, one hour before meals. If desired, an additional tablet may be given midevening to overcome night hunger. Use in children under 12 years of age is not recommended.

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Prescribing Information—Composition: Each white, beveled, compressed tablet contains: Quinine sulfate, 260 mg., Aminophylline, 195 mg. **Indications:** For the prevention and treatment of nocturnal and recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis and static foot deformities. **Contraindications:** QUINAMM is contraindicated in pregnancy because of its quinine content. **Precautions/Adverse Reactions:** Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. Discontinue use if ringing in the ears, deafness, skin rash, or visual disturbances occur. **Dosage:** One tablet upon retiring. Where necessary, dosage may be increased to one tablet following the evening meal and one tablet upon retiring. **Supplied:** Bottles of 100 and 500 tablets.

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PRECAUTION: Do not use when symptoms of appendicitis are present and discontinue use if skin rash appears. Dependence on laxatives can result from continued use.

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Editorial

Don't Iron While the Strike is Hot*

It's difficult to understand any one worried about the population explosion and at the same time ridiculing women liberation movements, for there are reasons to believe that supporting the latter offers the best hope of averting the former. Since over the world the birth rate is highest precisely where the social status of woman is the lowest, where she has nothing to look forward to but taking care of a home and having babies. Although few on either side openly campaign against motherhood, it is obvious that an educated woman who has matured, will be a better judge of how many children she should have and a more stimulative and inspirational mother if she understands her society and contributes to its development by individual skills. Critics of the women's liberation movement belabor their emotional extremes, dismissing the activists as neurotic females with unruly hormones, trying to deny their womanhood.

Beneath all the oration, there however does appear to be something more than a searching for better jobs, rather a wanting of opportunities for more choice with one's life, more decision in one's reproductive future, and the right to achieve identity as an individual. Today, women find it less rewarding to live in the reflected light of husbands and children but only a small segment of women's lib talk of living without men or scuttling the institution of marriage, yet objection is expressed to being compliant, submissive and self-effacing. Opposed to giving up their own growth in deference to men, the goal is to seek a change in their image as inferiors without giving up their femininity, which has been in the past patterned as characteristic of a dependent personality producing a neurotic individual who never matures and never seems to be able to stand on her own two feet.

Society's external pressures should not be held accountable for all of woman's failure to forge ahead as some of the cause is within the individual woman with low self-esteem who avoids commitment in what is called a man's world. Such women have failed to achieve a true separation and resolution of their neurotic dependency needs. Although sincerely wanting opportunities to function fully, many are psychologically unprepared. The female, trapped by society to continue the responsibility of bringing up the progeny which anatomically she is forced to bear, points up the fact that biologically speaking, the male is not nearly as important as the female, for once mating is completed, the male is of no use to future generations. If present liberation movements took a lesson from the spider world, courting could be a dangerous undertaking, for according to an old husband's tale, the black widow female eats her mate after copulation.

Should the world relinquish the discriminatory attitudes that are prevalent, most women still have a long way to go before they can achieve the level of development for which they are reaching. Rather than feeling like a typical spoiled housewife with nothing to do, or believing that as people advance in years, men grow distinguished but women wither and become old hags, yet wanting others to see them not as bra burners, sex objects, men haters or frousy-haired radicals but rather as individuals, the organization will attract the admiration of the opposite sex when women learn to take pride and delight in their femaleness, rejecting the need to follow the feminine mystique or to copy men as models, learning to trust and love other women as sisters not as competitors for male approval; fighting rather for self respect and dignity.

Since most men would rather live with the woman they love in a world full of trouble than in heaven with nobody but men or women acting

*Slogan of National Organization for Women who called a strike last year in celebration of the 50th anniversary of woman's suffrage.

like men; and since it would appear that man more likely would love someone descended from womanhood never bought or sold, who never wore a veil, nor had a foot bound, whose realized ideal of marriage was sexual companionship and equality in duty and labor; and since woman, if not prepared by education to become the companion of man, would stop the progress of knowledge for truth must be common to all; then woman's liberation should extend into politics and economics and education, enabling man and woman together to approach the task of building a safe, decent and wholesome home for the entire human family.

C.M.C.

Health Maintenance Organization

At a meeting entitled "Consumer Conference on Health Care Delivery," sponsored by the American Hospital Association, an audience representing the poor and underprivileged was asked to respond to health care corporations and other aspects of the AHA's plan for National Health Insurance.

Most of the discussion appeared to be centered about the concept of HMOs, whose only support came from a representative of organized labor. Depersonalized care and loss of free choice of physician were mentioned only briefly as phony issues, backed by the remark that hardly anyone who is poor has ever known what it's like to have his own personal physician.

The conferees representing the poor, the near poor, the medically indigent and disadvantaged minorities, displayed a striking unity in protesting most pending efforts to revise the present medical system. They criticized HMOs as perpetuating the status quo and its flaws, failing to put doctors where needed and leading to substandard care. The clamor reflected a deep distrust, not only of the political establishment but of the medical and social establishments as well. Opposed was any medical care program devised by bureaucrats or physicians. Strongly affirming that they would settle for nothing less than programs created and controlled by the deprived, wanting a stronger voice in initiating new programs, criticizing HMOs as nothing but a way of channeling funds through existing bodies that have proven incapable of providing health care, they were in favor of improving health care by expanding existing programs such as the neighborhood health center. This would serve as a means of getting doctors to the people who need them.

Fearing that HMOs would form only in areas with relatively affluent populations, they affirmed that before health money gets down to the poor, bureaucrats and professionals have taken it all. As a step toward taking the profit motive out of medicine, they recommended restraints on what doctors earn, saying the HMOs would only increase the number of salaried physicians, putting medicine on the same level as businesses with hours from nine to five, five days a week and no coverage on weekends and holidays.

They urged that consumers be given more voice in evaluating quality and a hand in selecting the MD reviewers in order to name doctors in whom they have confidence. Requesting complete say-so in running health care programs with a governing board composed of a majority of consumers, one-third poor and another one-third medically indigent, they demanded that they be allowed to designate the benefits offered. Representing some 85 million people, including 25 million below the poverty level, plus 25 million blacks and other nonwhite minorities, they want more respect from the personnel at health centers.

In contradiction to what was said earlier in the meeting, the majority expressed the opinion that they be allowed to choose the physicians who would serve them. Insisting on providing the most comprehensive kinds of care to the most people, they paid little attention to what the cost of such a program might be or how it would be funded.

The remarks heard at this conference were somewhat similar to criticisms of subscribers in a Maryland prepaid medical group plan where dissatisfactions revolve around the lack of after-hour treatments, poor scheduling of appointments and long waits before obtaining care.

Does this sound familiar?

C.M.C.

Corticosteroid Therapy

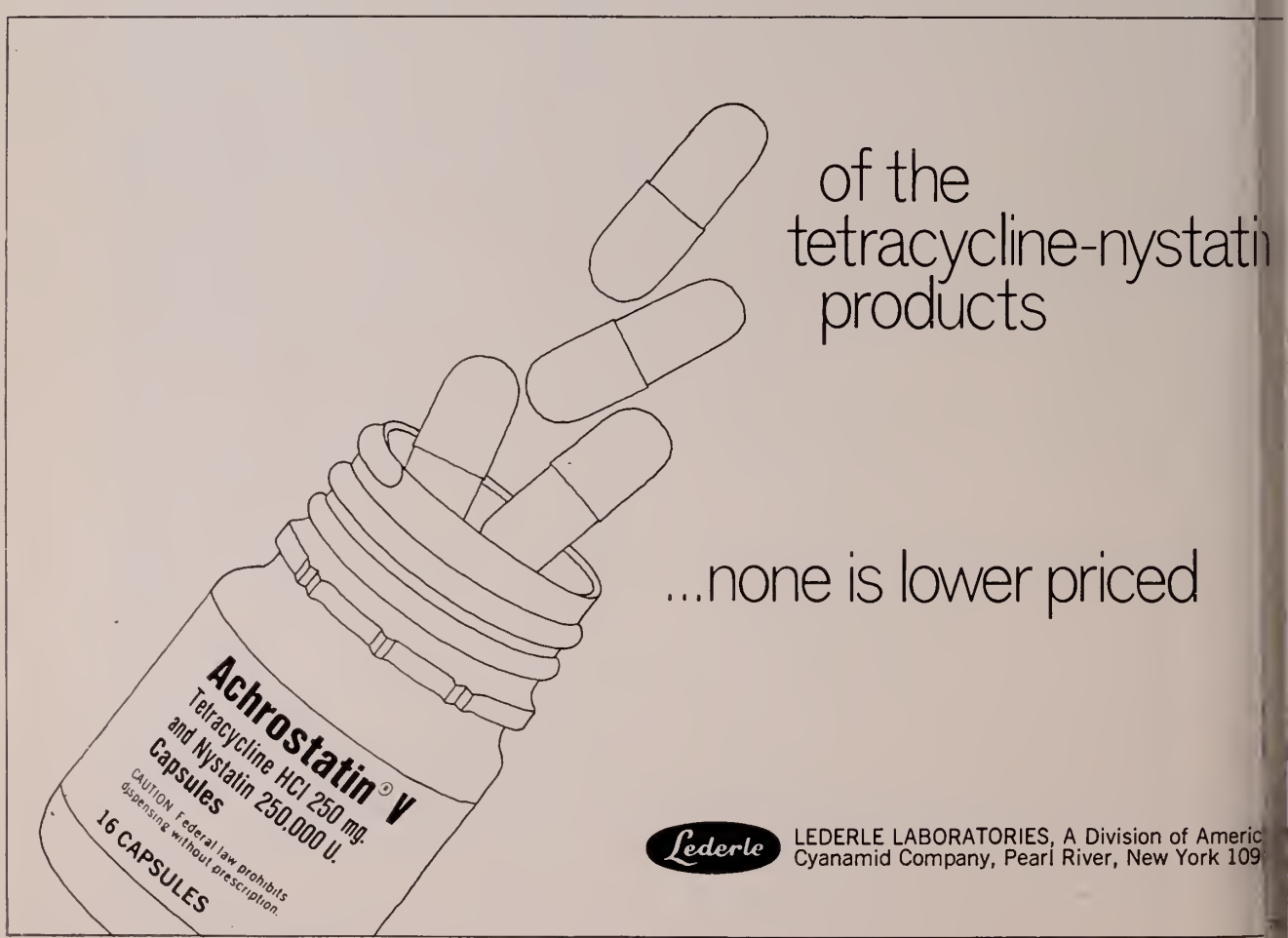
Jack W. Hall, M.D.

Elsewhere in the Journal, Drs. Corcoran, Granatir and Schlang call attention to the syndrome of hyperglycemic hyperosmolar nonketotic coma and rightfully so since the mortality of this particular condition is an alarming 50%. In these cases, early recognition and prompt, vigorous therapy might well mean the difference in survival.

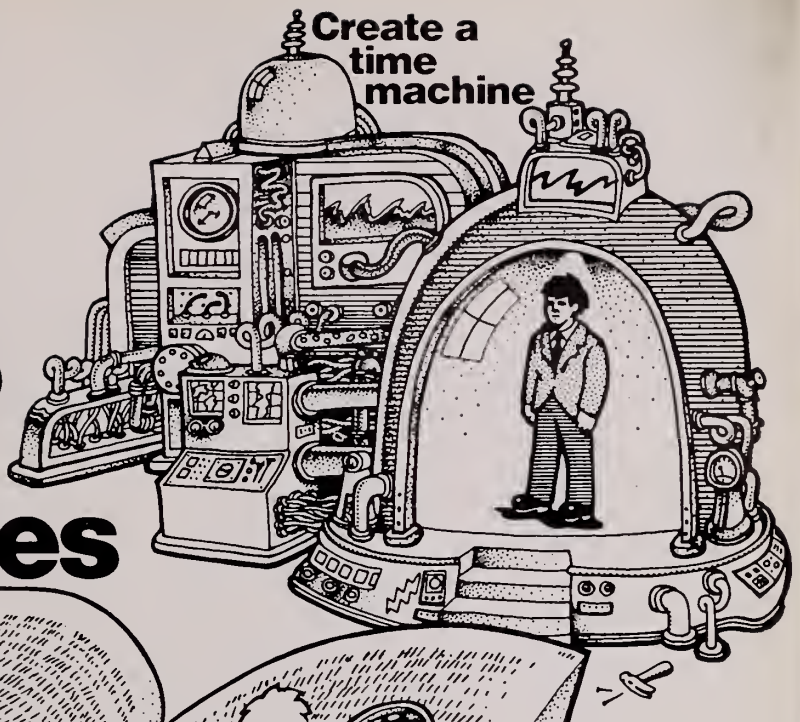
The association of the syndrome with glucocorticoid administration has been previously recognized and reported, but the widespread use of these drugs warrants calling attention to this potential complication. The case reported also illustrates one serious complication of the syndrome—that of major vessel thrombosis.

While expansion of the details of treatment and of the findings at postmortem examination would make the case report of more value, these are not essential to the authors' message; that is, corticosteroid drugs in high dosage are hazardous for a number of reasons, and patients with metastatic disease can have other equally as serious problems. To be frequently reminded is to remain alert. The brief review of the literature provides adequate reference material for those wishing to pursue the subject in greater detail.

▸ Dr. Hall, Director, Internal Medical Services, Pensacola Educational Program, Pensacola.



What to do until suppositories work:







Actually, on the average, evacuant suppositories take about an hour to work.[1-3] Sometimes two.[4] Sometimes more.[3] Also, suppositories can be ineffective in up to 38% of patients,[5] and not infrequently produce smarting, burning and tenesmus.[6]

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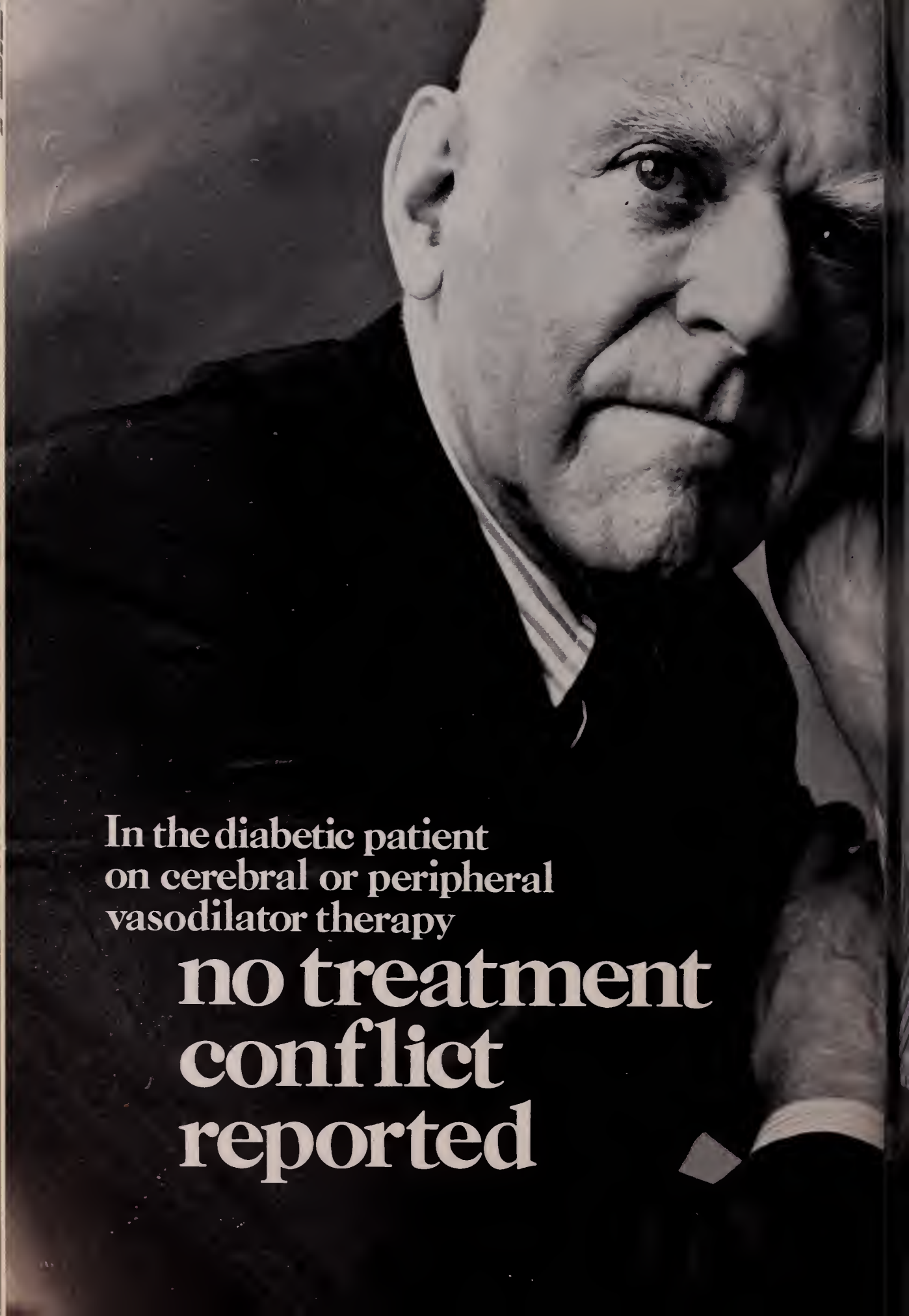
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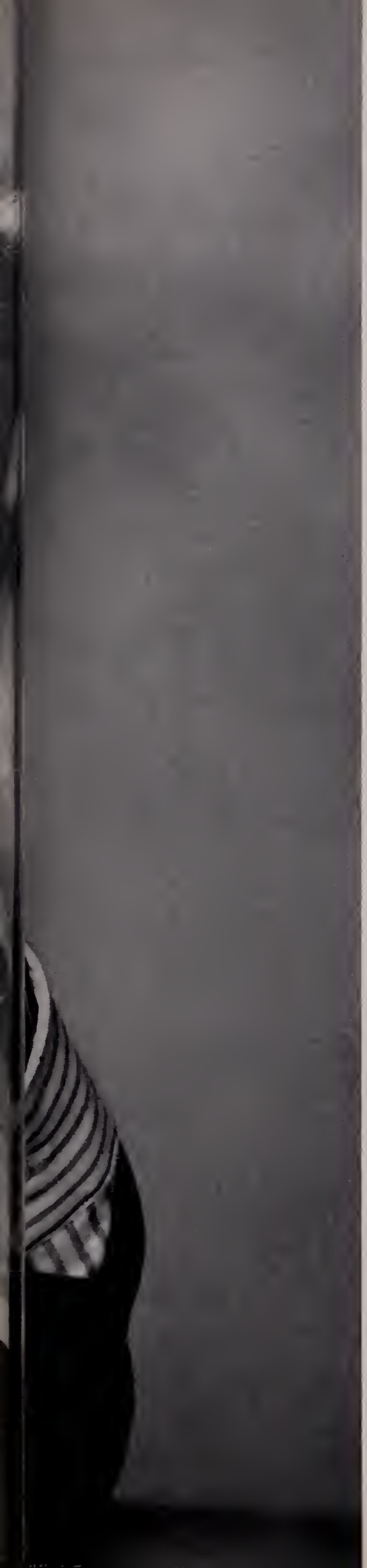
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Warning: Frequent or prolonged use of enemas may result in dependence. Take only when needed or when prescribed by a physician. Do not use when nausea, vomiting or abdominal pain is present.
Caution: Do not administer to children under two years of age unless directed by a physician.

References: 1. Blumberg, N.: Med Times 91:45, Jan., 1963. 2. Sweeney, W. J., III: Amer J Obstet Gynec 85:908, Apr. 1, 1963. 3. Weinsaft, P.: J Amer Geriat Soc 12:295, Mar., 1964. 4. Baydoun, A. B.: Amer J Obstet Gynec 85:905, Apr. 1, 1963. 5. Feder, I. A., Flores, A. and Weiss, J.: Amer J Gastroent 33:366, Mar., 1960. 6. Smith, J. J. and Schwartz, E. D.: Western J Surg 72:177, May-June, 1964.

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In fact, there are no known contraindications in recommended oral doses other than it should not be given in the presence of frank arterial bleeding or immediately postpartum.

Although not all clinicians agree on the value of vasodilators in vascular disease, severa investigators[2-5] have reported favorably on the effects of isoxsuprine. Effects have been dem onstrated both by objective measurement[3,5] and observation of clinical improvement.[2]

Indications: Cerebrovascular insufficiency, arteriosclerosis obliterans, diabetic vascula diseases, thromboangiitis obliterans (Buerger's disease), Raynaud's disease, postphlebiti conditions, acroparesthesia, frostbite syndrome and ulcers of the extremities (arteric sclerotic, diabetic, thrombotic). Composition: VASODILAN tablets, isoxsuprine HCl 10 m and 20 mg. Dosage: Oral—10 to 20 mg. t.i.d. or q.i.d. Contraindications and Cautions There are no known contraindications to recommended oral dosage. Do not give imm diately postpartum or in the presence of arterial bleeding. Side Effects: Occasional pa pitation and dizziness can usually be controlled by dosage reduction. Complete detai available in product brochure from Mead Johnson Laboratories. **References:** (1 Samuels, S. S., and Shaftel, H. E.: J. Indiana Med. Ass. *54*:1021-1023 (July) 196 (2) Clarkson, I. S., and LePere, D. M.: Angiology *11*:190-192 (June) 1960. (3) Horto G. E., and Johnson, P. C., Jr.: Angiology *15*:70-74 (Feb.) 1964. (4) Dhrymiotis, A. D., and Whittier, J. R.: Curr. Ther. Res. *4*:124-128 (April) 1962. (5) Whittier, J. R.: Angiology *15*:82-87 (Feb.) 1964.

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THE PHARMACOLOGICAL BASIS OF THERAPEUTICS
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DOSAGE: One tablet or capsule after each meal to correct emotional stress and normalize gastric secretions. In treating peptic ulcer, doses at regular intervals up to eight (8) tablets or capsules per day to provide the proper gastric titer for healing. After ulcer has healed, one tablet or capsule after each meal to maintain a titer unfavorable to recurrence.

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Dean's Page

University of South Florida's Charter Class

Donn L. Smith, M.D.

Among the many problems and frustrations incident to the establishment of a new college of medicine, one duty emerges as a distinct and highly rewarding experience. This one especially pleasant task is that of extending a welcome to the Charter Class.

In our case, the class consists of 24 young men and women, all of great ability and high potential. This group includes three women and 21 men. All are Florida residents with excellent backgrounds and all are very strong in the area of being forthright and compassionate human beings. Indeed, the faculty and I are more impressed by their characteristics in terms of mature, responsible people than by the numerous high grade-point averages and outstanding Medical College Admission Test scores which they bring to the college.

The average age of the class is 21 and six of them are married (at this writing). Each student is well aware of the long, difficult road which lies ahead and each recognizes the sustained effort and sacrifice that will be required to achieve professional competence and qualification as a physician.

I know that all of the physicians in the state join us in extending a warm welcome to our young colleagues and extend to each of them sincere best wishes for good fortune and success.

It is the hope of the faculty to present the entire class to the profession with pride and high expectations at commencement in June of 1975.

The members of the class, their universities and home towns are:

Karl Altenburger	University of South Florida	Miami
Rufus Armstrong	Auburn University	Tampa
Douglas Barrett	University of South Florida	Clearwater
Loren Bartels	University of South Florida	Tampa
Thomas G. Bell	University of Florida	St. Petersburg
Grant P. Carmichael	University of Florida	Wauchula
Dexter Clayton III	Emory University	Tampa
John W. Demetree	Emory University	Orlando
Joseph F. Dibble	University of South Florida	Tampa
Gary L. Dunlap	Citadel	Palm Beach Shores
John M. Elliott	Florida Tech. University	Goldenrod
Sheila F. Farmer	University of South Florida	Tampa
John Marvin Hellrung	University of Florida	Dunedin
Capt. Russell Jenna	U. S. Military Academy	Tallahassee
Robert Martinez	University of South Florida	Tampa
Luther McEachern	University of Mississippi	Tampa
William D. Parker	Johns Hopkins University	Sarasota
Capt. Gary Peterson	U. S. Air Force Academy	Ormond Beach
Gregory J. Piacente	Emory University	St. Petersburg
Caroline Setzer	University of South Florida	Tampa
Margaret L. Struthers	University of Richmond, Va.	Jacksonville
Stephen Vernon	University of South Florida	Winter Haven
Joseph C. Wheeler III	University of Florida	Gainesville
Gary Winchester	University of Florida	Tallahassee

Dr. Smith is Director of the Medical Center and Dean of the College of Medicine, University of South Florida, Tampa.

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Indications: Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome, late pregnancy; also steroid-induced and idiopathic edema, and edema resistant to other diuretic therapy. 'Dyazide' is also indicated in the treatment of mild to moderate hypertension.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: **Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired.** Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., certain elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—they can both cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus pancreatitis, and xanthopsia have occurred with thiazides alone.

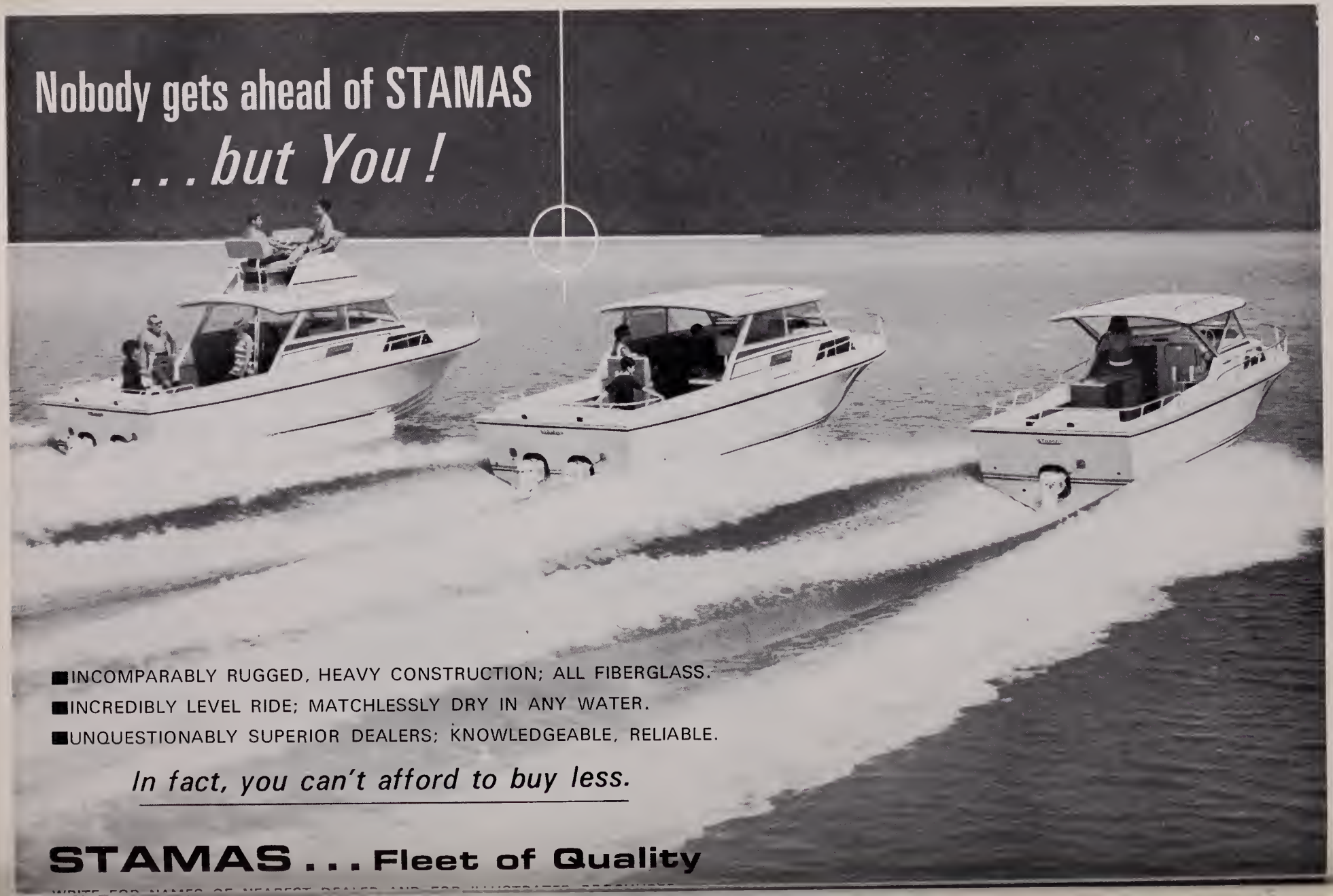
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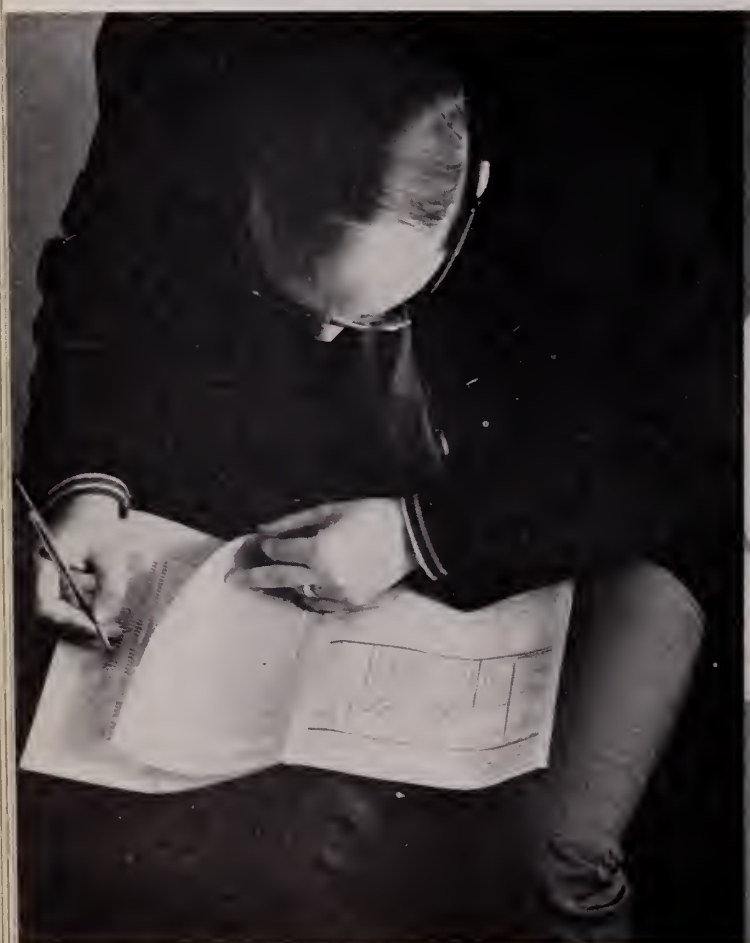
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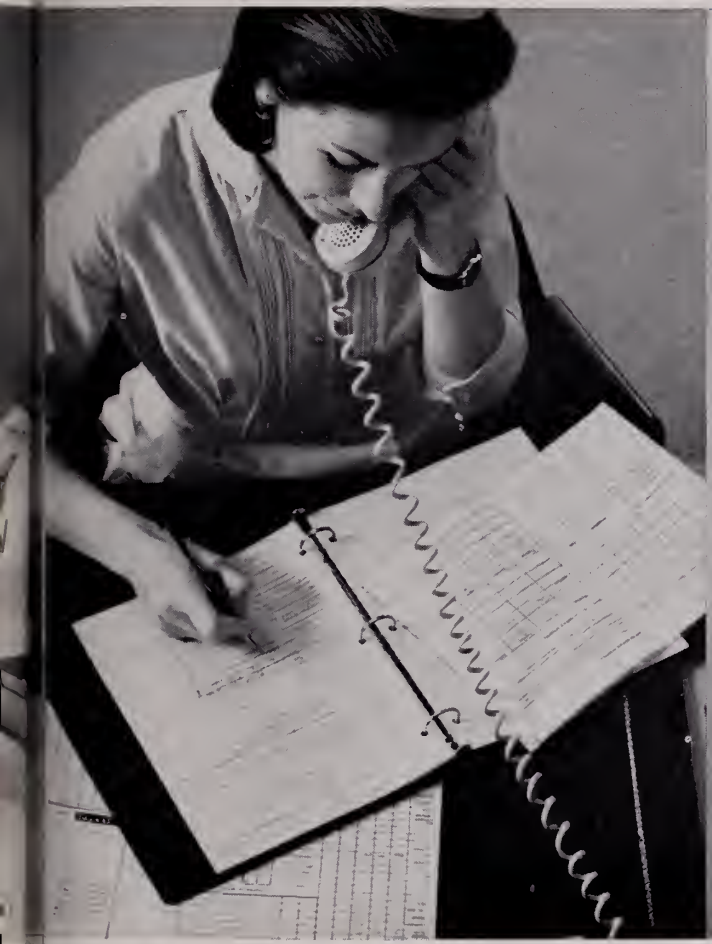
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Medical News

Annual Meeting of South Florida Society of Pathologists

The Annual Meeting of the South Florida Society of Pathologists will be held in Miami, Jan. 11, 1972.

Raymond Justi, M.D., and George Ioannides, M.D., both of Miami, are president and secretary, respectively, of the Society.

Internists Meet in South Carolina

Internists from a six state area including Florida will gather at the Sheraton-Ft. Sumpter Hotel at Charleston, S.C., this month for a regional meeting of the American College of Physicians.

Vince Moseley, M.D., of Charleston, ACP Governor for South Carolina, arranged the program, October 7-9.

Cleft Palate Association Annual Meeting

The Florida Cleft Palate Association will have its annual convention at the Manger Motor Inn in Tampa, Jan. 21-22, 1972.

John W. Curtin, M.D., of Chicago, and Mr. Emmett Roberts, Secretary of the Florida Department of Health and Rehabilitative services, will be guest speakers.

Meeting information may be obtained from Robert J. Harrison, Ph.D., 446 Alhambra Circle, Coral Gables, Fla. 33134.

Division of Thoracic and Cardiovascular Surgery Appointment

Gerard A. Kaiser, M.D., has been appointed Chief of the Division of Thoracic and Cardiovascular Surgery at the University of Miami School of Medicine.

Until recently, Dr. Kaiser was Associate Professor of Surgery at the College of Physicians and Surgeons of Columbia University. He received his M.D. degree at that medical school in 1958 and received his internship and residency training at New York area hospitals.

Dr. Kaiser is a Fellow of the American College of Surgeons.

Certified by American Board of Anesthesiology

Four Florida physicians are among the latest group of doctors to be certified by the American Board of Anesthesiology.

They are: Robert L. Gerlaugh, M.D., Miami; Marshall R. Kessler, M.D., Bay Harbor Islands; Michael A. Khan, M.D., Key West, and Rodrigo R. Sievert, M.D., Jacksonville.

ACP Regional Scientific Meeting

The American College of Physicians has scheduled its Florida Regional Scientific Meeting for November 19-21 at Winter Park.

Information may be obtained by contacting Donald F. Marion, M.D., 1394 Coral Way, Miami, Fla. 33145.

Grant for Cancer Research

Dr. Lee A. Bricker, Assistant Professor of Medicine at the University of Miami, has received a $30,000 grant from the Damon Runyon Memorial Fund for Cancer Research.

The grant will support a study of how malignancies affect cholesterol metabolism.

Training Course for Emergency Room Nurses

A four-day training course for hospital emergency room nurses has been arranged for December 2-5 in Miami Beach at the Americana Hotel.

The course of lectures and audiovisual demonstrations will be sponsored by the Committee on Injuries of the American Academy of Orthopaedic Surgeons.

Registration forms and additional information may be obtained from C. L. Wilson, M.D., 9526 N.E. Second Avenue, Miami Shores, Florida 33138.

Urological Society Meeting in Naples

The interim meeting of the Florida Urological Society will be held Nov. 5-7 at the Beach Club in Naples.

Information concerning the program may be obtained by contacting John I. Williams, M.D., Secretary-Treasurer, Florida Urological Society, 4701 North Federal Highway, Fort Lauderdale, Fla. 33308.

FMA Co-Sponsors Infections Control Program

A seminar on "Infections Control in Hospitals and Institutions: Administrative" will be held in Tampa at the Manger Inn, Oct. 19-21.

The Florida Medical Association, the Florida Division of Health and the U.S. Center for Disease Control in Atlanta are among the sponsors.

Discussion will concern, among other things, principles, approaches and responsibilities of infections control; the extent of the problem; functions of an effective infections control committee; and legal aspects and responsibilities.

Additional information about the program may be obtained by contacting Mr. E. Russell Jackson, Florida Division of Health, P. O. Box 210, Jacksonville 32201.

Biennial Conference SMJAB

Last month in New Orleans there was conducted the biennial conference of the State Medical Journal Advertising Bureau of which the *Journal of the Florida Medical Association* is a member. This organization, composed of 34 state journals including Alaska, Texas and Pennsylvania, was organized for the purpose of pooling knowledge and experience to lend assistance in solving problems of finances, make-up, management and writing. Traveling to Louisiana to represent Florida was the Director of Communications, Edward D. Hagan; Managing Editor of the Journal, Louise Rader, and the Editor.

Described before the assembled group of doctors and full time staff were plans of the Internal Revenue Service to tax funds obtained from advertising fees paid to nonprofit corporations.

Discussing the future of prescription drugs, the Hon. Charles Griffin, Congressman from Mississippi, told us that the regulation opposing the use of combination drugs as written by the FDA has been reversed. This came about as the result of doctors and patients writing their congressmen that the present edict was too restrictive and an encroachment on the doctors' prerogative to prescribe for his patient. Under the new ruling, drugs are to be categorized as effective, probably effective or possibly effective.

A lecture by the professor of journalism from Loyola University redefined our concepts of medical journals in simple terms, saying "Since each doctor must conserve his reading time, he looks to medical journals as a tool for aiding him in providing better patient care." He suggested that journals be attractive, eliminating clutter with adequate white space and including as many color drawings and illustrations as one's budget would allow. He viewed journals as a method of moving information back and forth among members of each state organization. The state journals reach 200,000 physicians, are opinion molders, and so should include only the very best of medical writing.

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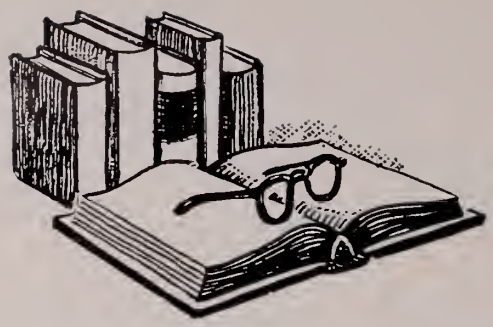
To the 25th AMA Clinical Convention in New Orleans. Participation will be the key at this medical meeting -- you and your colleagues getting together for a useful and rewarding learning experience. Evaluating and discussing the problems of clinical medicine.

The scientific program is outstanding, with three in-depth postgraduate courses on Behavioral Problems in Children and Adolescents; Cardiovascular Disease; and Fluid and Electrolyte Balance. Other sessions you'll want to attend include Diagnostic Evaluation and Management of Joint Diseases; Dermatological Problems in Everyday Practice; Current Concepts in Gastroenterology; Office Gynecology: Management of Common Problems, and a Symposium on Diverticular Disease of the Colon. Along with these sessions are dozens of scientific and industrial exhibits to help inform you of the latest research and the newest products and services.

Plan to be there. See the complete scientific program and registration forms in the October 18th issue of JAMA.

25th
AMA Clinical Convention
November 28 - December 1, 1971
the Rivergate
Convention Center
New Orleans





Book Review

The Low Fat, Low Cholesterol Diet by Clara-Beth Young Bond, R.D.; E. Virginia Dobbin, R.D., and Helen F. Gofman, M.D. Pp. 512. Price $7.95. New York, Doubleday Company, Inc., 1971.

The Low Fat, Low Cholesterol Diet succeeds well in its stated objective to aid in planning and executing a low saturated fat, low cholesterol diet regimen. Written by five ladies including one physician and two dieticians, the book combines culinary ingenuity with medical expertise. Some delightful examples of their kitchen wizardry include "special" cream cheese, "special" sour cream and "substitute whole egg."

The innumerable recipes are not only divided into sections as to the type of food, but introductions explain the rationale behind the ingredients. The tyro at the range need not fear a fat restricted regimen since even the basics of cooking are rehashed (pun intended) in this volume.

An additional section of this book is devoted to the restriction of sodium in a low fat diet, a common medical necessity. The section on nutritional science is a splendid introduction to the biochemistry of food and vitamins.

In an age where diet consciousness in medical management is playing a greater role, this special volume should find a respected place.

HARRY W. EICHENBAUM, M.D.
St. Petersburg

Books Received

Receipt of the following books is acknowledged. While time and space will not permit review of all books received, medical readers interested in reviewing particular books are invited to address requests to the Editor. Following acceptance of a written review for publication, a reviewer may then retain the book reviewed for his personal or favorite library.—Ed.

Guides to the Evaluation of Permanent Impairment by the Committee on Rating of Mental and Physical Impairment of the American Medical Association. Pp. 164. Price $5. Copyright, Chicago, American Medical Association, 1971.

Brands, Generics, Prices and Quality by PMA. Pp. 118. Price $1.00. Washington, D. C., Pharmaceutical Manufacturers Association, 1971.

Fifth Conference on War Surgery, Tokyo, Japan, March 29-April 2, 1971. Pp. 73. Copies available from CINCPAC, Attn: Surgeon, FPO San Francisco, California 96610.

Development and Legal Regulation of Coercive Behavior Modification Techniques With Offenders by Ralph K. Schwitzgebel, Ed.D., J.D., Harvard University. Pp. 90. Price 45 cents. Public Health Service Publication 2067, U.S. Government Printing Office, Washington, D.C. 20402.

Symposium on the Functional Physiopathology of the Fetus and Neonate, Clinical Correlations. Edited by Harold Abramson, M.D. Pp. 182. 61 illustrations. Price $15.00. St. Louis, The C. V. Mosby Company, 1971.

The Mental Health of the Child. Edited by Julius Segal, Ph.D. Pp. 588. Price $5.00. Washington, D. C., U.S. Government Printing Office, 1971.

Handbook of Clinical Dermatoglyphs by Musallam S. Elbualy and Joan D. Schindeler. Pp. 64. Price $6.95. Coral Gables, University of Miami Press, 1971.

Synopsis of Pediatrics by James G. Hughes, M.D. Pp. 1141. Illustrated. Price $14.50. St. Louis, The C. V. Mosby Company, 1971.

Speech Pathology by William H. Perkins, Ph.D. Illustrated. Pp. 449. Price $11.75. St. Louis, The C. V. Mosby Company, 1971.

Review of Medical Physiology by William F. Ganong, M.D. Pp. 573. Illustrated. Price $8.50. Los Altos, California, Lange Medical Publications, 1971.

The Human Heart—A Guide to Heart Disease. Second Edition by Brendan Phibbs, M.D. Pp. 247. 102 illustrations. Price $5.75. St. Louis, The C. V. Mosby Company, 1971.

Multiphasic Health Testing Systems: Reviews and Annotations by Anna C. Gelman, M.P.H. Pp. 155. U.S. Government Printing Office, 1971.



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Since mental confusion, anxiety and tremors have been reported in patients receiving orphenadrine and propoxyphene concurrently, it is recommended that Norgesic not be given in combination with propoxyphene (Darvon®).
Warnings: USE IN PREGNANCY: Since safety of the use of this preparation in pregnancy, during lactation, or in the child-bearing age has not been established, use of the drug in such patients requires that the potential benefits of the drug be weighed against its possible hazard to the mother and child.
USE IN CHILDREN: The safe and effective use of this drug in children has not been established; therefore, the physician must weigh the benefits against the potential hazards.
Precautions: It has been reported that prolonged or excessive use of phenacetin may result in nephrotoxicity. Caution, therefore, should be exercised when Norgesic is administered to patients with renal disorders. It should also be used with caution in patients with tachycardia.
Adverse Reactions: Side effects of Norgesic are those seen with APC or those usually associated with mild anticholinergic agents. These may include tachycardia, palpitation, urinary hesitancy or retention, dry mouth, blurred vision, dilatation of the pupil, increased intraocular tension, weakness, nausea, vomiting, headache, dizziness, constipation, drowsiness, and rarely, urticaria and other dermatoses. Infrequently an elderly patient may experience some degree of confusion. Mild central excitation and occasional hallucinations may be observed. These mild side effects can usually be eliminated by reduction in dosage. One case of aplastic anemia associated with the use of Norgesic has been reported. No causal relationship has been established. **Dosage and Administration:** Adults—1 to 2 tablets 3 to 4 times daily.

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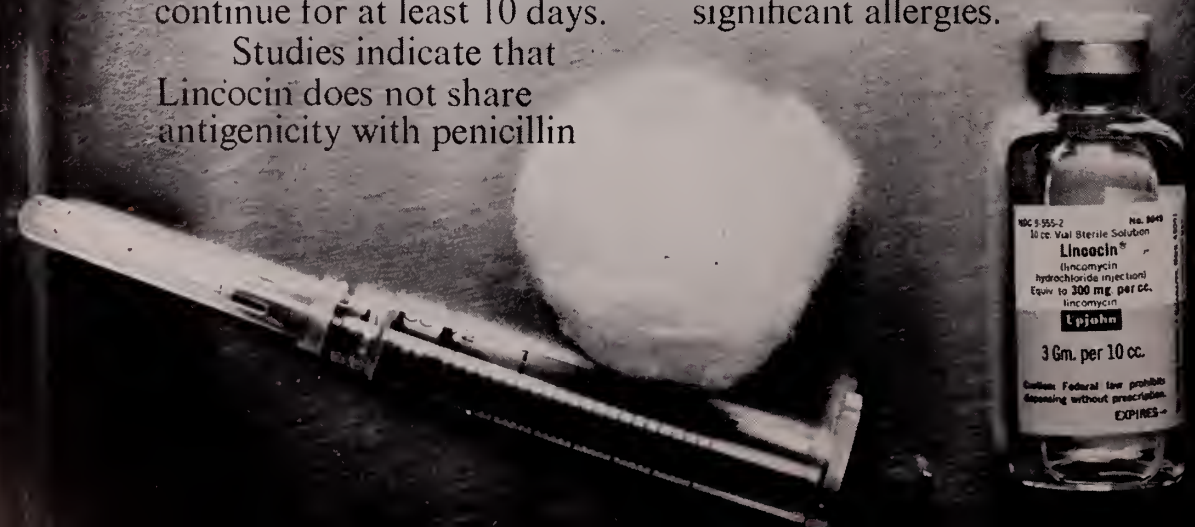
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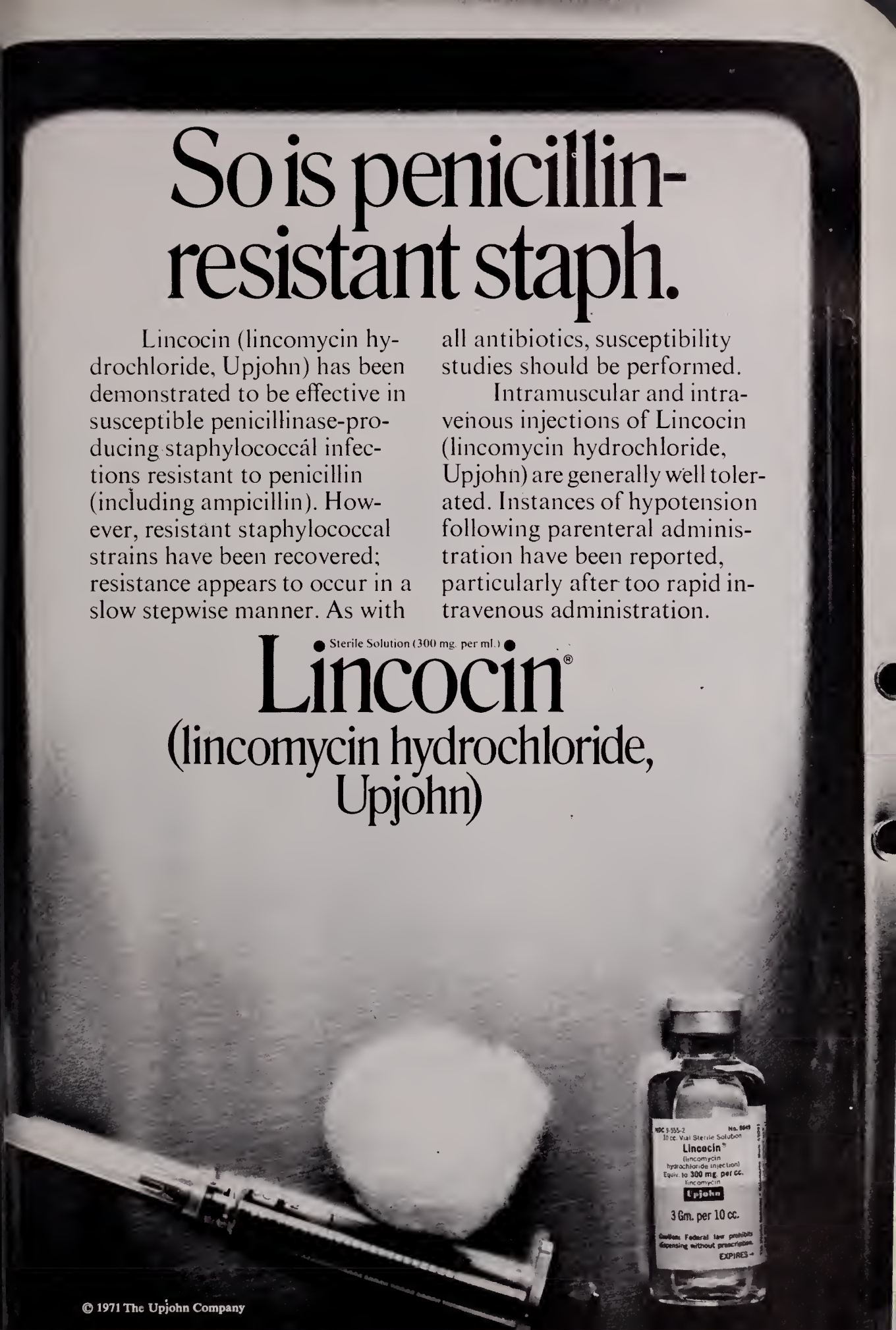
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WARNINGS: Cases of severe and persistent diarrhea have been reported and at times drug discontinuance has been necessary. This diarrhea has been occasionally associated with blood and mucus and at times has resulted in acute colitis. This reaction usually has been associated with oral therapy, but occasionally has been reported following parenteral therapy. Although cross sensitivity to other antibiotics has not been demonstrated, make careful inquiry concerning previous allergies or sensitivities to drugs. Safety for use in pregnancy has not been established and Lincocin is not indicated in the newborn. Reduce dose 25 to 30% in patients with severe impairment of renal function.

PRECAUTIONS: Like any drug, Lincocin should be used with caution in patients having a history of asthma or significant allergies. Overgrowth of nonsusceptible organisms, particularly yeasts, may occur and require appropriate measures. Patients with pre-existing monilial infections requiring Lincocin therapy should be given concomitant antimonilial treatment. During prolonged Lincocin therapy, periodic liver function studies and blood counts should be performed. Not recommended (inadequate data) in patients with pre-existing liver disease unless special clinical circumstances indicate. Continue treatment of β-hemolytic streptococci infection for ten days to diminish likelihood of rheumatic fever or glomerulonephritis.

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MEETINGS

Approved by FMA Committee on Continuing Education

OCTOBER

29-30 Hemophilia Symposium on Comprehensive Management of the Hemophilia Patient, Americana Hotel, Miami Beach. For information: Newton C. McCollough III, M.D., University of Miami School of Medicine, Box 875, Biscayne Annex, Miami 33152.

NOVEMBER

10-13 Today's Hospital Problems: An Interdisciplinary Approach—Fifth Annual Conference, Tides Hotel and Bath Club, Redington Beach. For information: M. A. Barton, M.D., Mound Park Hospital Foundation, St. Petersburg 33701.

19-20 Tenth Annual Physicians' Seminar on Respiratory Diseases and Workshop for Allied Health, Perdido Bay Inn & Golf Club, Pensacola. For information: Jay D. Williams Jr., M.D., Box 8127, Jacksonville 32211.

29-Dec. 4 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

DECEMBER

2- 5 Ninth Annual Cardiology Seminar, Princess Hotel, Acapulco, Mexico. For information: Henry J. L. Marriott, M.D., St. Anthony's Hospital, St. Petersburg 33733.

8-10 Clinical Nephrology and Heart Disease Seminar, Eden Roc Hotel, Miami Beach. For information: Mrs. Gwen Hendel, Mt. Sinai Hospital, 4300 Alton Rd., Miami Beach 33140.

13-18 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

Florida State Board of Medical Examiners: January 16-18, 1972, Tampa

For information: Mrs. Marjoriann Keebler, Assistant Director, Florida State Board of Medical Examiners, 2717 E. Oakland Pk. Blvd., Fort Lauderdale, Fla. 33306.

JANUARY

3- 8 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

4- 9 Special Procedures: Radiological Interpretations, Play Boy Plaza, Miami Beach. For information: Mrs. Gwen Hendel, Mt. Sinai Hospital, 4300 Alton Rd., Miami Beach 33140.

10-11 Infectious Disease 1972: Treatment and Prevention, Eden Roc Hotel, Miami Beach. For information: Frances Richardson, Mt. Sinai Hospital, 4300 Alton Rd., Miami Beach 33140.

24-29 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

National and Regional Meetings Held in Florida

NOVEMBER

1- 4 Southern Medical Association, Miami Beach. Exec. Dir.: Mr. Robert F. Butts, 2601 Highland Ave., Birmingham, Ala. 35205.

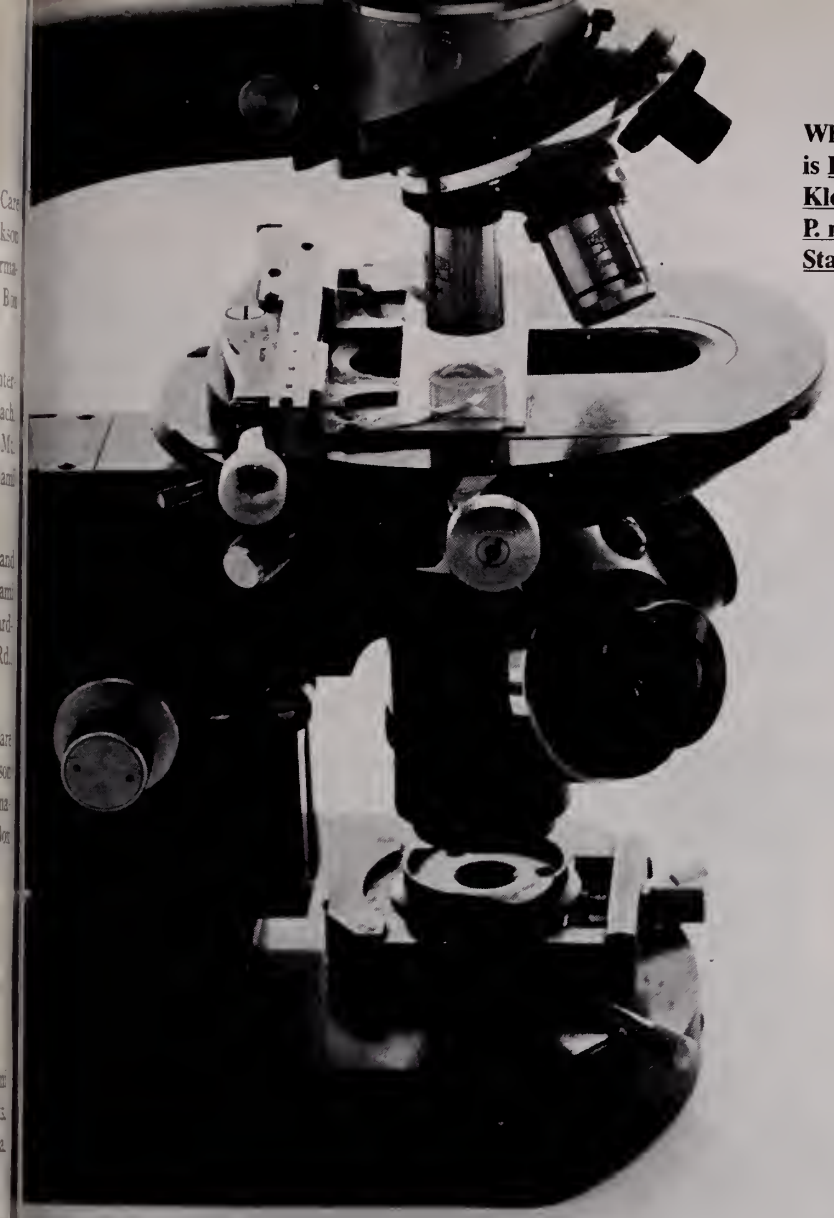
2 George Papanicolaou Memorial Seminar in Gynecologic Pathology, Fontainebleau Hotel, Miami Beach. Dir.: George Ioannides, M.D., 1830 S.W. 99th Ave., Miami 33165.

3- 7 Florida Chapter of American Academy of Pediatrics and Florida Pediatric Society Annual Meeting, Curacao Hilton, Curacao, Netherlands, W.I. John C. Moore, M.D., 82 Lake Morton Dr., Lakeland 33801.

4- 6 Southern Thoracic Surgical Association, Tampa. Sec.-Treas.: James W. Brooks, M.D., 1200 E. Broad St., Richmond, Va. 23219.

JANUARY

17-19 American College of Surgeons, Sectional Meeting. Sheraton-Four Ambassadors Hotel, Miami. Info. Communications Division, 55 E. Erie St., Chicago 60611.



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Warnings: Safety of sulfonamides in *pregnancy* has not been established. Sulfonamides will not eradicate group A streptococci. Deaths have been reported from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias associated with sulfonamide administration. Clinical signs such as sore throat, fever, pallor, purpura or jaundice may be early indications of serious blood disorders. Complete blood counts and urinalysis with careful microscopic examination should be performed frequently during sulfonamide therapy.
Precautions: Use with caution when impaired renal or hepatic function, severe allergy or bronchial asthma is present. In glucose-6-phosphate dehydrogenase-deficient individuals, hemolysis (frequently a dose-related reaction) may occur. Maintain adequate fluid intake to prevent crystalluria and stone formation.
Adverse Reactions: *Blood dyscrasias:* Agranulocytosis, aplastic anemia, thrombocytopenia, leukopenia, hemolytic anemia, purpura, hypoprothrombinemia, methemoglobinemia. *Allergic reactions:* Erythema multiforme (Stevens-Johnson syndrome), generalized skin eruptions, epidermal necrolysis, urticaria, serum sickness, pruritus, exfoliative dermatitis, anaphylactoid reactions, periorbital edema, conjunctival and scleral injection, photosensitization, arthralgia, allergic myocarditis. *Gastrointestinal reactions:* Nausea, emesis, abdominal pains, hepatitis, diarrhea, anorexia, pancreatitis, stomatitis. *C.N.S. reactions:* Headache, peripheral neuritis, mental depression, convulsions, ataxia, hallucinations, tinnitus, vertigo, insomnia. *Miscellaneous reactions:* Drug fever, chills, toxic nephrosis with oliguria and anuria. Periarteritis nodosa and L.E. phenomenon have occurred with sulfonamide therapy. Sulfonamides bear certain chemical similarities to some goitrogens, diuretics and oral hypoglycemic agents. Goiter production, diuresis and hypoglycemia have occurred rarely in patients receiving sulfonamides. Cross-sensitivity may exist with these agents.
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Miscellaneous

PHYSICIANS WANTED IN FLORIDA, DIVISION OF MENTAL HEALTH: Positions are available for qualified physicians (Florida license not required). General practitioners, internists, surgeons, psychiatrists—in the hospital facilities of the Division of Mental Health. Interest, accompanied by a curriculum vitae, should be directed to E. Arthur Larson, M.D., Deputy Director for Hospitals and Institutes, Division of Mental Health, 200 East Gaines Street, Room 425, Tallahassee, Florida 32304.

WANTED IMMEDIATELY: Private emergency room physician. Corporate group needs fifth physician in teaching hospital, Orlando, Florida. Prefer GP. Florida license required. Contact Bruce S. Webster, M.D. (305) 647-5728 or Robert Gay, M.D. (305) 422-0159.

PHYSICIANS NEEDED: Tallahassee, Leon County, Northwest. General practitioners, internists and pediatricians in particular. Inquiries regarding practice in this community can be forwarded to J. Orson Smith Jr., M.D., Chairman, Physician Procurement Committee, 1433 Miccosukee Rd., Tallahassee, Fla. 32303. Phone (904) 877-1145.

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ADDITIONAL PHYSICIANS URGENTLY NEEDED: GP, internal medicine, obstetrics, pediatrics, and general surgery. Modern office immediately available. Contact Pat M. Woodward, M.D., P.O. Box 819, Quincy, Florida 32351.

STAFF PHYSICIAN: State facility for mentally retarded. Beginning salary depending on qualifications. Reply to include brief summary of professional experience. Send to W. B. Barrow, M.D., Medical Director, P.O. Box 2369, Ft. Myers, Florida 33902.

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RADIOLOGIST: Board certified, Florida licensed. Desires association with group or hospital affiliation in good school area. Wife is native of Florida. Write C-509, P. O. Box 2411, Jacksonville, Florida 32203.

RADIOLOGIST: Florida license, Board certified and experienced, seeks hospital, clinic or association with radiologist(s). Reply to C-511, P.O. Box 2411, Jacksonville, Florida 32203.

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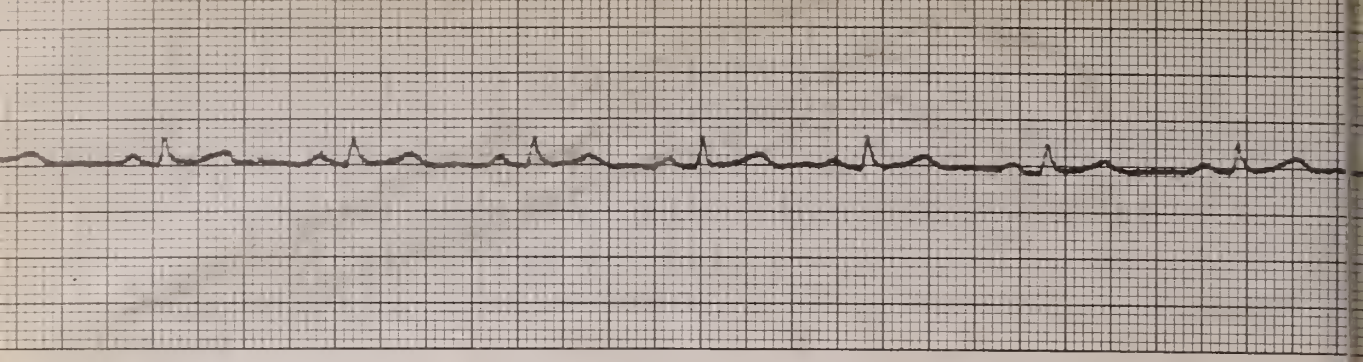
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When disease is ruled out and psychic tension is implicated

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Valium® (diazepam) 2-mg, 5-mg, 10-mg tablets helps relax the patient and relieve his somatic symptoms

Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of [illegible] addition to habituation and dependence. In [illegible] with other psychotropic agents, including antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

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Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

Dosage: Individualize for maximum beneficial effect. *Adults:* Tension, anxiety and psychoneurotic states, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).

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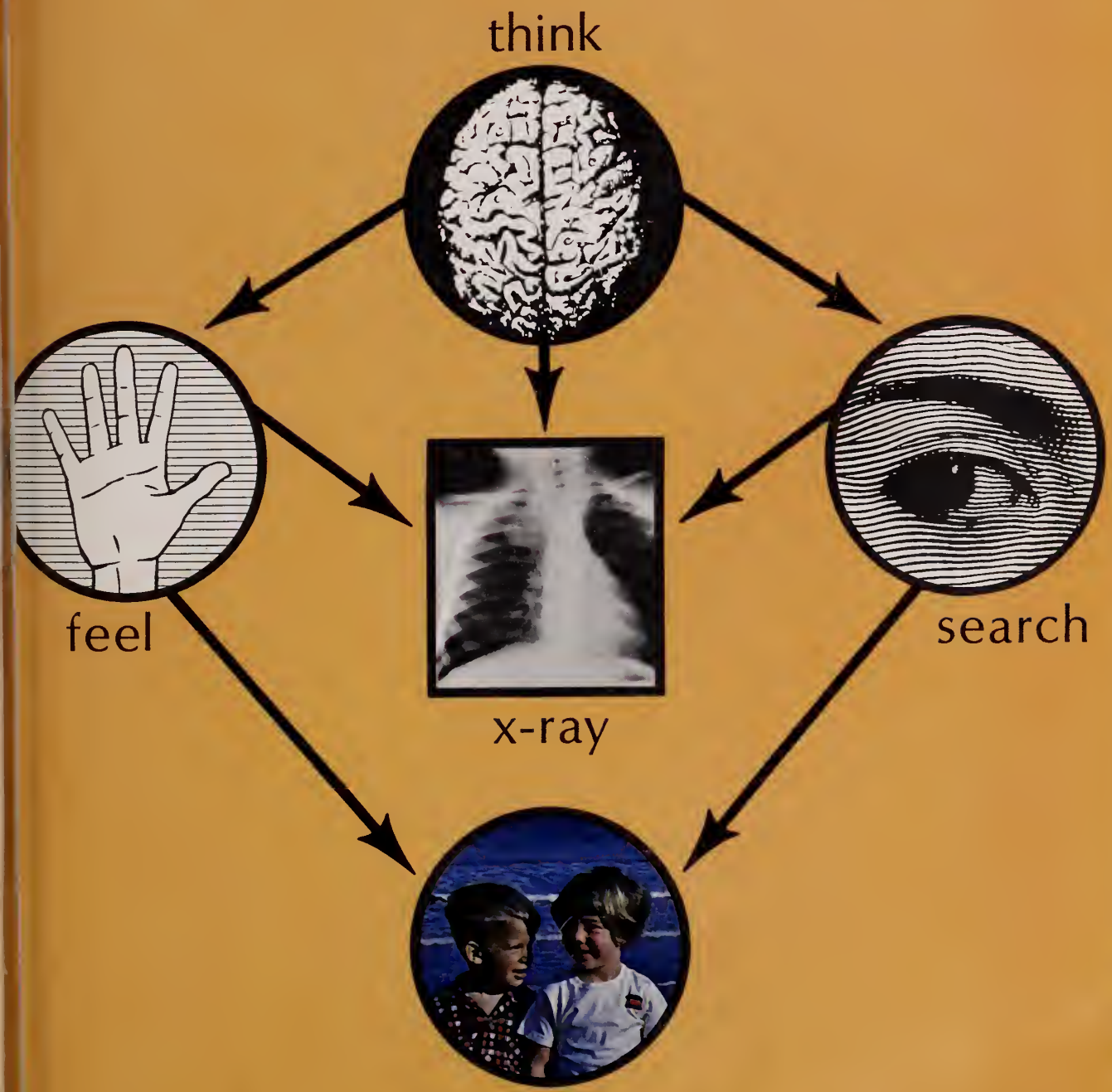
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THE JOURNAL OF THE Florida Medical Association

THE FLORIDA MEDICAL ASSOCIATION, INC. M D 1964

NOVEMBER, 1971 • VOLUME 58 • NUMBER 11

CANCER AND CHILDREN



Patients fell asleep quickl

Dalmane (flurazepam HCl) 30 mg reduced awake time—both before and after falling asleep - by fifty percent of pretreatment values in patients with insomnia.[1,2]

Two sleep laboratory studies recently confirmed findings of earlier studies of this type, namely, that Dalmane 30 mg was effective in patients who had trouble falling asleep, staying asleep or both. One 30-mg capsule of Dalmane usually induced sleep within 22 minutes, decreased the number of awakenings and the wake time after the onset of sleep, and provided 7 to 8 hours of sleep without need to repeat dosage during the night.

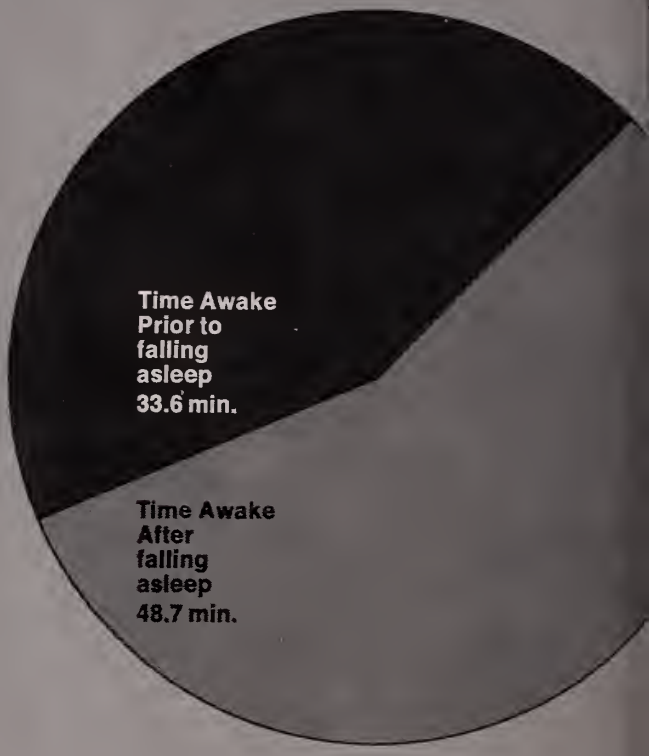
These studies utilized identical protocols and included eight insomniac patients. Sleep laboratory measurements in a limited number of patients are derived from all-night electro-encephalographic, electro-oculographic and electromyographic tracings. Unlike traditional methods of evaluation, they are quantitative, reproducible and projectable to large numbers of subjects.

Results shown represent average values in all subjects for the three consecutive nights of placebo administration prior to Dalmane therapy and the seven consecutive nights on Dalmane 30 mg.

Dalmane is also relatively safe, as reported in clinical studies. Instances of morning "hang-over" have been relatively infrequent; paradoxical reactions (excitement) and hypotension have been rare. Dizziness, drowsiness, lightheadedness and the like were the side effects noted most frequently, particularly in the elderly or debilitated. (An initial dose of Dalmane 15 mg should be prescribed for these patients.)

References: 1. Frost, J. D., Jr.: "A System for Automatically Analyzing Sleep," Scientific Exhibit presented at Clinical Convention, A.M.A., Boston, Nov. 29-Dec. 2, 1970, and Aerospace M.A., Houston, April 26-29, 1971.
2. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley, N.J.

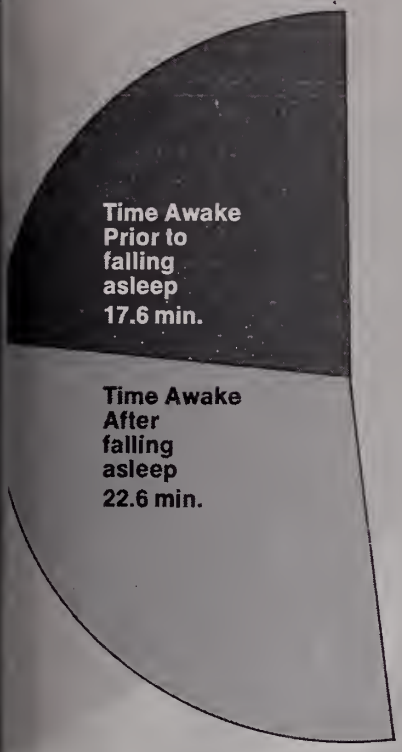
Before Dalmane (flurazepam HCl)



Measurements of sleep in the sleep laboratory are obtained with electroencephalographic, electro-oculographic and electromyographic recordings.

nd slept through the night

)n
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sleep laboratory measurements in cited studies

er	Before Dalmane	On Dalmane
quired to fall asleep	33.6 min.	17.6 min.
ne after onset of sleep	48.7 min.	22.6 min.
of wakeful periods after of sleep	12.2	8.4
ep time	420.0 min.	447.5 min.
ep percent	88.6	94.5

ical effectiveness as
ren in the sleep laboratory

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Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Use in women who are or may become pregnant only when potential benefits have been weighed against possible hazards. Not recommended for use in persons under 15 years of age. Though physical and psychological dependence have not been reported on recommended doses, use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated, initial dosage should be limited to 15 mg to preclude oversedation, dizziness and/or ataxia. If combined with other drugs having hypnotic or CNS-depressant effects, consider potential additive effects. Employ usual precautions in patients who are severely depressed; or with latent depression or suicidal tendencies. Periodic blood counts and liver and kidney function tests are advised during repeated therapy. Observe usual precautions in presence of impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported were headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins and alkaline phosphatase. Paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity, have also been reported in rare instances.

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NOVEMBER COVER—The concept depicted on the cover is adapted from a slide used by Dr. Albert H. Wilkinson Jr. to convey the importance of the early recognition of childhood cancer by the physician who is responsible for the examination and ongoing health care of children.

President's Page



Maintaining Physician Competence

Recently, I attended the joint meeting of the FMA Committee on Professional Liability Insurance with the underwriters and brokers of our program.

Out of this discussion it was learned that one reason for the growing problem of malpractice suits concerns the quality of care and professional competence. Physician competence is a fundamental element of quality medical care; and likewise medical education is basic to competence. Medical education's goal is the production of physicians equipped to provide optimal care for the public; and the ultimate evaluation of an educational system is the effectiveness of its products.

There are two main traditional approaches for establishing competence. The primary one is by state licensure which is a method of assuring public protection and which provides a basic safeguard against the practice of medicine by unqualified physicians. It stipulates educational and performance requirements for initial entry. However, beyond that point they rarely if ever take direct jurisdiction over a physician's activities to determine professional competence. Under our new Florida statutes it is easier now to do than formerly, but still our State Board of Examiners does not believe that it would be possible to maintain continuous surveillance of standards for all physicians in the State. It is unfortunate that the possession of the license in itself does not directly bear upon professional competence.

One other point which I feel is important is that standards for licensing inevitably lag behind advances in knowledge and practice, particularly in some of the highly sophisticated sub-specialty groups which we now have.

For many years medical specialty boards have worked with the problem of determining competence, and they have done this through a process of certification which is purely voluntary; but they do give recognition for the physician who has attained a level of competence that qualifies him as a specialist in a certain field. These specialty boards are to be commended for providing an important service to the public and to the profession by elevating the standards of professional practice in the medical specialties. There are some weaknesses in this certification process, one being that it focuses primarily upon the candidate's ability to recall. Another criticism is the manner in which the examinations are conducted where there is a range of variability among the examiners. It would appear obvious that re-certification on a profession wide scale would present many economic problems as well as being impractical.

As a result of the shortcoming of these two systems to develop professional competency there seems to be emerging other methods in which competency can be maintained. One is peer review, which is the evaluation by practicing physicians of the quality and efficiency of services ordered or performed by other practicing physicians. This obviously has many advantages. The second is self-assessment, which may be defined as a systematic inventory made by the individual of his acquaintance with and access to currently valid medical knowledge and procedures. At present 13 medical specialty organizations are implementing self-assessment programs. Both methods would seem to motivate the practicing physician to become and remain competent in order to provide his best service for the patient. I feel that the FMA should become actively involved in this problem of competence, and I hope that our committees will address themselves to this phase of maintaining leadership and assistance in professional competency.

J. K. Hurst M.D.



the compound analgesic that calms instead of caffeinates

In addition to pain, this patient has experienced anxiety, fear, embarrassment, anger, and frustration. It's very likely that these psychic factors actually accentuated his perception of pain. Surely the last thing he needs is an analgesic containing caffeine. A much more logical choice is Phenaphen with Codeine. It provides a quarter grain of phenobarbital to take the nervous "edge" off, so the rest of the formula can control the pain more effectively. It's no accident that the Phenaphen formulations contain a sedative rather than a stimulant. Don't you agree, Doctor, that psychic overlay is an important factor in most of the accident cases you see?

Phenaphen® with Codeine

Phenaphen with Codeine Nos. 2, 3, or 4 contains: Phenobarbital (¼ gr.), 16.2 mg. (warning: may be habit forming); Aspirin (2½ gr.), 162.0 mg.; Phenacetin (3 gr.), 194.0 mg.; Hyoscyamine sulfate, 0.031 mg.; Codeine phosphate, ¼ gr. (No. 2), ½ gr. (No. 3) or 1 gr. (No. 4) (warning: may be habit forming).

Indications: Provides relief in severer grades of pain, on low codeine dosage, with minimal possibility of side effects. Its use frequently makes unnecessary the use of addicting narcotics. *Contraindications:* Hypersensitivity to any of the components. *Precautions:* As with all phenacetin-containing products, excessive or prolonged use should be avoided. *Side effects:* Side effects are uncommon, although nausea, constipation and drowsiness may occur. *Dosage:* Phenaphen No. 2 and No. 3—1 or 2 capsules every 3 to 4 hours as needed; Phenaphen No. 4—1 capsule every 3 to 4 hours as needed. For further details see product literature.

A. H. Robins Company, Richmond, Va. A·H·ROBINS



'head clear upon arising'

For upper respiratory allergies and infections including the common cold, Dimetapp Extentabs® effectively relieve the stuffiness, drip and congestion all night and all day long on just one Extentab every 12 hours. For most patients drowsiness or overstimulation is unlikely.

prescribing information appears on next page

A·H·ROBINS

A. H. Robins Company
Richmond, Va. 23220

Dimetapp® Extentabs

Dimetane® (brompheniramine maleate), 12 mg.; phenylephrine HCl, 15 mg.; phenylpropanolamine HCl, 15 mg.

Dimetapp Extentabs®

INDICATIONS: Dimetapp Extentabs are indicated for symptomatic relief of allergic manifestations of upper respiratory illnesses, such as the common cold, seasonal allergies, sinusitis, rhinitis, conjunctivitis and otitis. In these cases it quickly reduces inflammatory edema, nasal congestion and excessive upper respiratory secretions, thereby affording relief from nasal stuffiness and postnasal drip.
CONTRAINDICATIONS: Hypersensitivity to antihistamines of the same chemical class. Dimetapp Extentabs are contraindicated during pregnancy and in children under 12 years of age. Because of its drying and thickening effect on the lower respiratory secretions, Dimetapp is not recommended in the treatment of bronchial asthma. Also, Dimetapp Extentabs are contraindicated in concurrent MAO inhibitor therapy.
WARNINGS: *Use in children:* In infants and children particularly, antihistamines in overdosage may produce convulsions and death.
PRECAUTIONS: Administer with care to patients with cardiac or peripheral vascular diseases or hypertension. Until the patient's response has been determined, he should be cautioned against engaging in operations requiring alertness such as driving an automobile, operating machinery, etc. Patients receiving antihistamines should be warned against possible additive effects with CNS depressants such as alcohol, hypnotics, sedatives, tranquilizers, etc.
ADVERSE REACTIONS: Adverse reactions to Dimetapp Extentabs may include hypersensitivity reactions such as rash, urticaria, leukopenia, agranulocytosis and thrombocytopenia; drowsiness, lassitude, giddiness, dryness of the mucous membranes, tightness of the chest, thickening of bronchial secretions, urinary frequency and dysuria, palpitation, hypotension/hypertension, headache, faintness, dizziness, tinnitus, incoordination, visual disturbances, mydriasis, CNS-depressant and (less often) stimulant effect, anorexia, nausea, vomiting, diarrhea, constipation, and epigastric distress.
HOW SUPPLIED: Light blue Extentabs in bottles of 100 and 500.

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the opening
of

Saint Jude Treatment and Rehabilitation Center

For

Alcoholism and Drug Dependency

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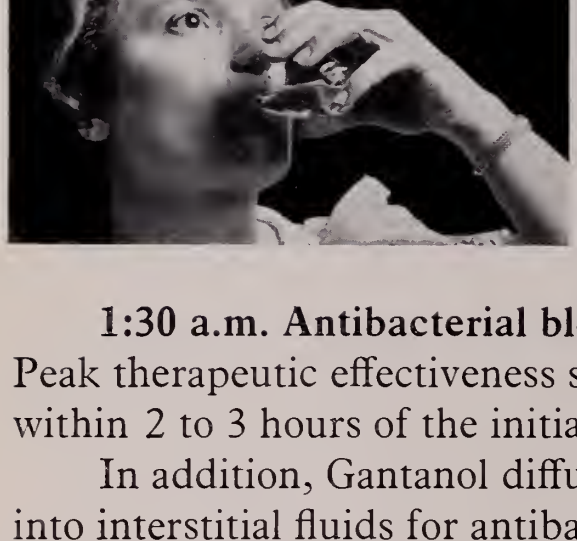
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Affiliates of Black & Skaggs Associates
Battle Creek, Michigan

It's working, even when she's not.

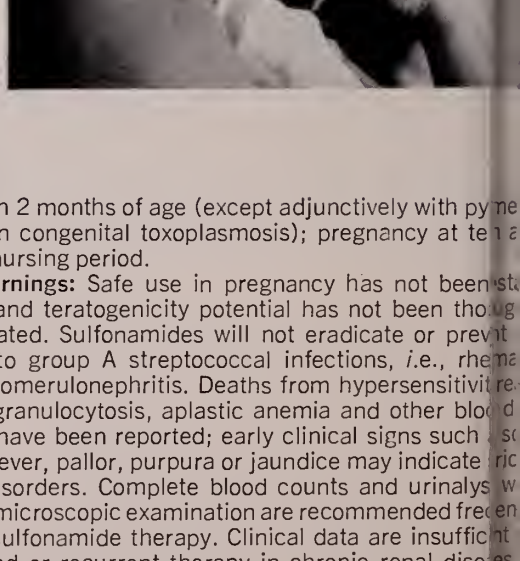


10:30 p.m. To bed with tablets o suspension. Either dosage form of Gantanol® (sulfamethoxazole) provides reliable therapy for nonobstructed cysiti

The convenient *b.i.d.* schedule let the patient rest assured—while Gantanol fights the infection.

1:30 a.m. Antibacterial blood and urine levels build fast. Peak therapeutic effectiveness starts within 2 to 3 hours of the initial dose.

In addition, Gantanol diffuses readily into interstitial fluids for antibacterial activity at the foci of the infection.



Before prescribing, please consult complete product information, a summary of which follows:

Indications: Effective in acute, recurrent or chronic urinary tract infections (primarily pyelonephritis, pyelitis and cystitis) due to susceptible organisms (usually *E. coli, Klebsiella-Aerobacter, Staphylococcus aureus, Proteus mirabilis,* and, less frequently, *Proteus vulgaris*) and in the absence of obstructive uropathy or foreign bodies. *Note:* Carefully coordinate *in vitro* sulfonamide sensitivity tests with bacteriologic and clinical response. Add aminobenzoic acid to culture media of patients receiving sulfonamides. Resistant organisms present a current problem to the usefulness of antibacterial agents. Blood levels should be measured in patients receiving sulfonamides for serious infections, since there may be wide variations with identical doses; 20 mg/100 ml should be the maximum total sulfonamide level, as adverse reactions occur more frequently above this level.

Contraindications: Sulfonamide hypersensitivity; infants less than 2 months of age (except adjunctively with pyrimethamine in congenital toxoplasmosis); pregnancy at term and during nursing period.

Warnings: Safe use in pregnancy has not been established, and teratogenicity potential has not been thoroughly investigated. Sulfonamides will not eradicate or prevent sequelae to group A streptococcal infections, *i.e.*, rheumatic fever, glomerulonephritis. Deaths from hypersensitivity reactions, agranulocytosis, aplastic anemia and other blood dyscrasias have been reported; early clinical signs such as sore throat, fever, pallor, purpura or jaundice may indicate serious blood disorders. Complete blood counts and urinalysis with careful microscopic examination are recommended frequently during sulfonamide therapy. Clinical data are insufficient for prolonged or recurrent therapy in chronic renal diseases in children under 6 years.

Precautions: Use with caution in patients with impaired renal or hepatic function, severe allergy, bronchial asthma and in glucose-6-phosphate dehydrogenase-deficient in-



4:30 a.m. Effective through the night. Each dose of Gantanol (sulfamethoxazole) delivers up to 12 hours of antibacterial action against susceptible hogens, such as *E. coli, Klebsiella-Aerobacter, S. aureus* and others. tion all day. And action all night to prevent retained urine from coming the medium for bacterial proliferation.

7:30 a.m. With a built-in margin of protection. Gantanol *b.i.d.* erapy means rapid symptomatic provement, often in 24 to 48 hours, for ost patients with nonobstructed urinary ct infections.



nonobstructed urinary tract infections

Gantanol® B.I.D. (sulfamethoxazole)

Tablets/Suspension

12 hours of therapy with every dose

als. In the latter, dose-related hemolysis may occur. tain adequate fluid intake to prevent crystalluria and e formation.

Adverse Reactions: *Blood dyscrasias:* agranulocytosis, stic anemia, thrombocytopenia, leukopenia, hemolytic nia, purpura, hypoprothrombinemia and methemoglobi- ia; *allergic reactions:* erythema multiforme (Stevens- son syndrome), skin eruptions, epidermal necrolysis, aria, serum sickness, pruritus, exfoliative dermatitis, phylactoid reactions, periorbital edema, conjunctival and al injection, photosensitization, arthralgia and allergic carditis; *gastrointestinal reactions:* nausea, emesis, ab- inal pains, hepatitis, diarrhea, anorexia, pancreatitis and atitis; *C.N.S. reactions:* headache, peripheral neuritis, tal depression, convulsions, ataxia, hallucinations, tin- s, vertigo and insomnia; and *miscellaneous reactions:* ; fever, chills, toxic nephrosis with oliguria and anuria, arteritis nodosa and L.E. phenomenon. Due to certain mical similarities with some goitrogens, diuretics (aceta- zolamide and thiazides) and oral hypoglycemic agents, sulfonamides have caused rare instances of goiter production, diuresis and hypoglycemia. Cross-sensitivity with these agents may exist.

Dosage: Systemic sulfonamides are contraindicated in infants under 2 months of age, except adjunctively with pyrimethamine in congenital toxoplasmosis. Usual dosage is as follows:

Adults—2 Gm (4 tabs or teasp.) initially, then 1 Gm *b.i.d.* or *t.i.d.* depending on severity of infection. *Children*—0.5 Gm (1 tab or teasp.)/20 lbs of body weight initially, followed by 0.25 Gm/20 lbs *b.i.d.* Maximum dose for children should not exceed 75 mg/kg/24 hrs.

Supplied: Each tablet or teaspoonful (5 ml) of suspension contains 0.5 Gm sulfamethoxazole.

ROCHE

Roche Laboratories
Division of Hoffmann-La Roche Inc.
Nutley, N.J. 07110



GGI Expectorant

SIMPLE & SPECIFIC

"Of the agents which influence respiratory tract fluid, only two are worth considering, the iodides and glyceryl guaiacolate."

Drugs of Choice, 1962-1963.
Modell p.478

■ G.G.I. contains both glyceryl guaiacolate and calcium iodide, and avoids the usual interfering ingredients present in many expectorant preparations, e.g. antihistamines, decongestants and antitussives.

■ G.G.I. Expectorant—when dry unproductive cough is clinically significant, especially in asthma, emphysema and chronic bronchitis.

Formula: Each 5cc. contains:
Glyceryl Guaiacolate 100m.
Calcium Iodide Anhydrous 150mg.
Alcohol 5%, in a tasty base.

Indications: To thin and increase bronchial secretions, especially in Asthma, Chronic Bronchitis, and Emphysema.

Contraindications: Certain cases of thyroid disease where iodine is contraindicated, known iodine sensitivity, pregnancy (where fetal thyroid depression may occur).

Precautions: Evaluate thyroid function and watch for symptoms of iodism during prolonged therapy. If iodism (skin rash, parotitis, ocular irritation) occurs during prolonged therapy, discontinue use.

Dosage: As an expectorant: Adults: One or two teaspoonfuls every two to four hours. Children 6-10: Half to one teaspoonful every two to four hours. Children under 6: As directed.

Supplied: On prescription only—pints & gallons.

FEDERAL PHARMACAL CORP.
1260 N.E. 35th Street,
Fort Lauderdale, Florida 33308

The girth control pill



Tepanil® Ten-tab®

(continuous release form)

(diethylpropion hydrochloride, N.F.)

When girth gets out of control, TEPANIL can provide sound support for the weight control program you recommend. TEPANIL reduces the appetite—patients enjoy food but eat less. Weight loss is significant—gradual—yet there is a relatively low incidence of CNS stimulation.

Contraindications: Concurrently with MAO inhibitors, in patients hypersensitive to this drug; in emotionally unstable patients susceptible to drug abuse.

Warning: Although generally safer than the amphetamines, use with great caution in patients with severe hypertension or severe cardiovascular disease. Do not use during first trimester of pregnancy unless potential benefits outweigh potential risks.

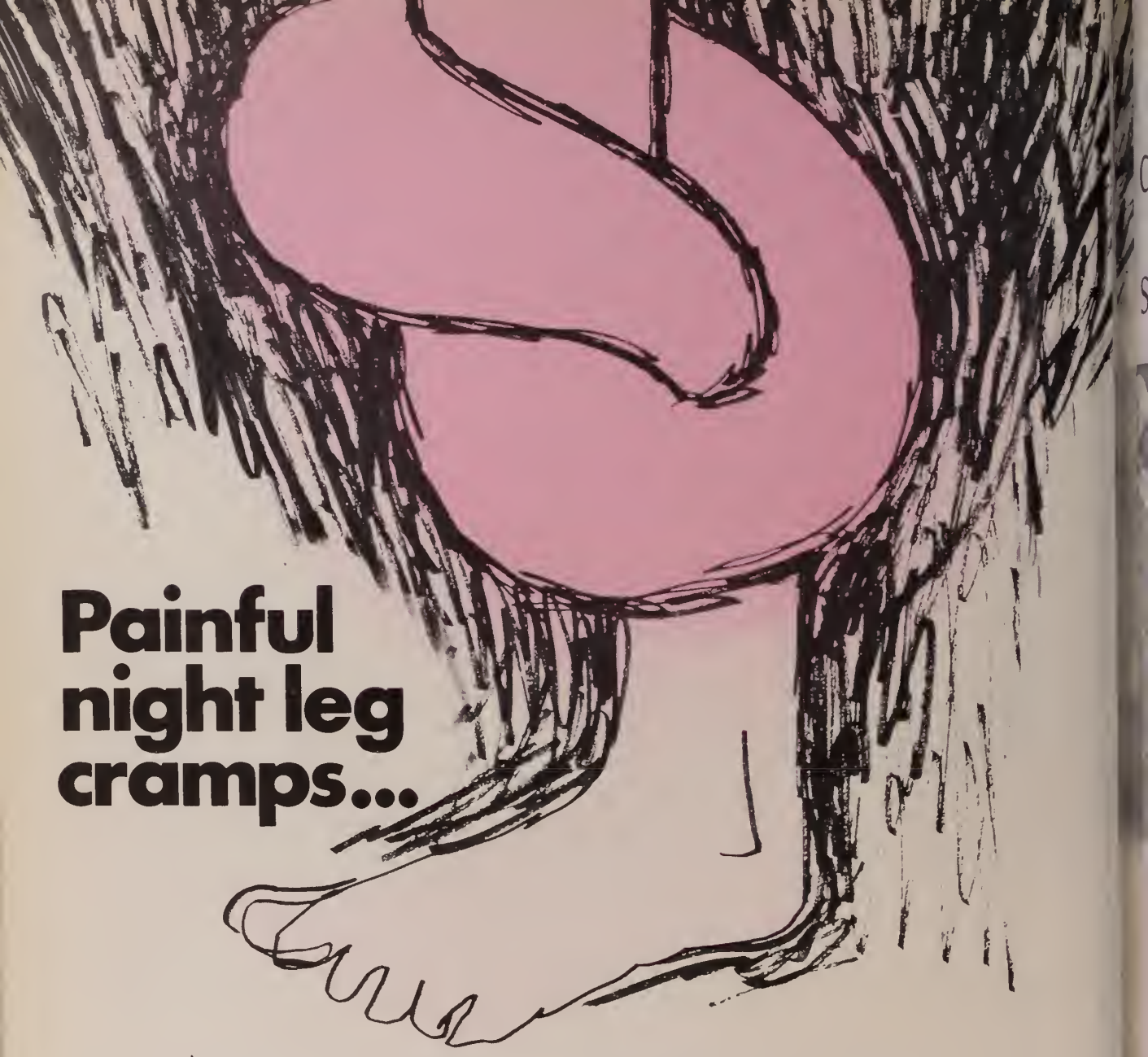
Adverse Reactions: Rarely severe enough to require discontinuation of therapy, unpleasant symptoms with diethylpropion hydrochloride have been reported to occur in relatively low incidence. As is characteristic of sympathomimetic agents, it may occasionally cause CNS effects such as insomnia, nervousness, dizziness, anxiety, and jitteriness. In contrast, CNS depression has been reported. In a few epileptics an increase in convulsive episodes has been reported. Sympathomimetic cardiovascular effects reported include ones such as tachycardia, precordial pain, arrhythmia, palpitation, and increased blood pressure. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride; this was an isolated experience, which has not been reported by others. Allergic phenomena reported include such conditions as rash, urticaria, ecchymosis, and erythema. Gastraintestinal effects such as diarrhea, constipation, nausea, vomiting, and abdominal discomfort have been reported. Specific reports on the hematopoietic system include two each of bone marrow depression, agranulocytosis, and leukopenia. A variety of miscellaneous adverse reactions have been reported by physicians. These include complaints such as dry mouth, headache, dyspnea, menstrual upset, hair loss, muscle pain, decreased libido, dysuria, and polyuria.

Convenience of two dosage forms: TEPANIL Ten-tab tablets. One 75 mg. tablet daily, swallowed whole, in midmorning (10 a.m.); TEPANIL. One 25 mg. tablet three times daily, one hour before meals. If desired, an additional tablet may be given in midevening to overcome night hunger. Use in children under 12 years of age is not recommended.

Merrell

MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215

I 3325 12876



Painful night leg cramps...

unwelcome bedfellow for any patient– including those with arthritis, diabetes or PVD

One thing patients can sleep without, particularly patients with chronic disease conditions such as arthritis, diabetes or PVD, is painful night leg cramps. Although seldom the presenting complaint, night leg cramps can tie your patients up in painful knots. Now, just one tablet of QUINAMM at bedtime can usually bring an end to shattered sleep and needless suffering. Your patients will sleep restfully—gratefully—with QUINAMM, specific therapy to prevent painful night leg cramps.

Prescribing Information—Composition: Each white, beveled, compressed tablet contains: Quinine sulfate, 260 mg., Aminophylline, 195 mg. **Indications:** For the prevention and treatment of nocturnal and recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis and static foot deformities. **Contraindications:** QUINAMM is contraindicated in pregnancy because of its quinine content. **Precautions/Adverse Reactions:** Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. Discontinue use if ringing in the ears, deafness, skin rash, or visual disturbances occur. **Dosage:** One tablet upon retiring. Where necessary, dosage may be increased to one tablet following the evening meal and one tablet upon retiring. **Supplied:** Bottles of 100 and 500 tablets.

Merrell

MERRELL-NATIONAL LABORATORIES
Division of Richardson-Merrell Inc.
Cincinnati, Ohio 45215

1-3326 (2877)

Quinamm™

(quinine sulfate 260 mg., aminophylline 195 mg.)

Specific therapy for night leg cramps

For new medical facilities designed to work best for you

A single source best meets your needs...



For new facilities that are in keeping with your needs . . . now and for the future . . . For better ways to function . . . Call BBC Health Care Industries, The "single responsibility" source for:

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Discuss your needs with
Mr. G. L. Brown, Vice President, today.

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A Health Care Subsidiary of Bank Building Corporation, the nation's largest, most experienced firm specializing in planning, designing, building and furnishing financial institutions.

MJF 971

Mr. G. L. Brown,
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1130 Hampton Avenue
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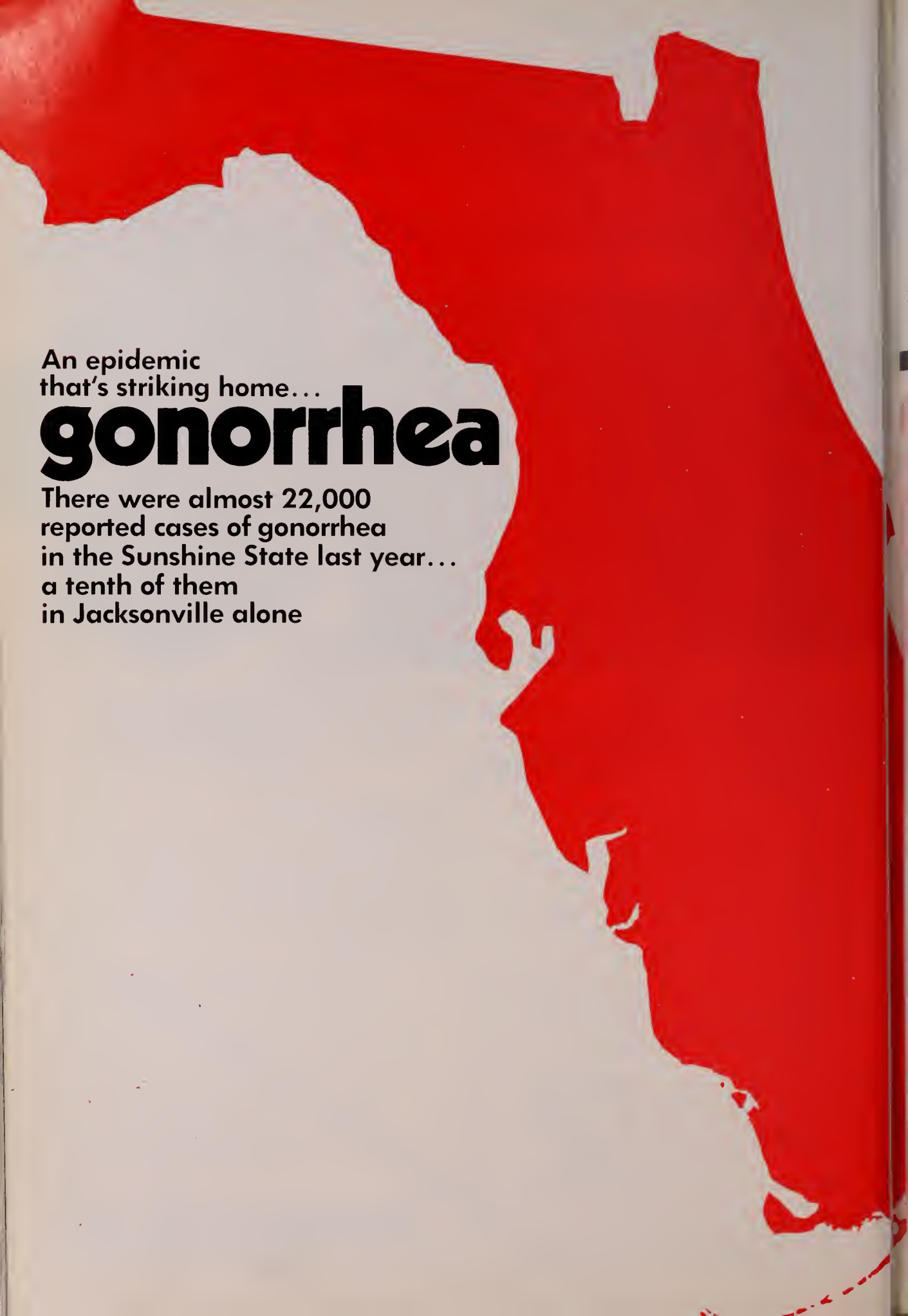
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City _____ State _____ Zip _____

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An epidemic
that's striking home...

gonorrhea

There were almost 22,000
reported cases of gonorrhea
in the Sunshine State last year...
a tenth of them
in Jacksonville alone

In Florida... and everywhere else...
a new alternative

NEW Trobicin® SPECTINOMYCIN DIHYDROCHLORIDE PENTAHYDRATE, UPJOHN

single-dose treatment for intramuscular use only

a chemically distinct antibiotic indicated specifically for treatment of acute gonorrhea:
in the male–acute urethritis and proctitis
in the female–acute cervicitis and proctitis
when due to susceptible strains of *N. gonorrhoeae*

High cure rate:*96% of 571 males, 95% of 294 females
(Dosages, sites of infection, and criteria for diagnosis and cure are defined on page 3 of advertisement)

Assurance of a single-dose, physician-controlled treatment schedule

No allergic reactions occurred in patients with an alleged history of penicillin sensitivity when treated with Trobicin, although penicillin antibody studies were not performed

Active against most strains of Neisseria gonorrhoeae *in vitro*
(M.I.C. 7.5-20 mcg/ml)

A single two-gram injection produces peak serum concentrations averaging about 100 mcg/ml in one hour
(average serum concentrations of 15 mcg/ml present 8 hours after dosing)

NOTE: Antibiotics used in high doses for short periods of time to treat gonorrhea may mask or delay the symptoms of incubating syphilis. Since the treatment of syphilis demands prolonged therapy with any effective antibiotic, and since Trobicin is not indicated in the treatment of syphilis, patients being treated for gonorrhea should be closely observed clinically. Monthly serological follow-up for at least 3 months should be instituted if the diagnosis of syphilis is suspected. Trobicin is contraindicated in patients previously found hypersensitive to it.
For full prescribing information, including contraindications, warnings and precautions, please see last page of this advertisement.

*Dato compiled from reports of 14 investigotors.

Upjohn The Upjohn Company, Kalamazoo, Michigan 49001

Trobicin and the gonorrhea challenge

An accelerating epidemic— a decelerating susceptibility to penicillin

Gonorrhea is now the most prevalent reported communicable disease in the nation. The estimated number of new cases of gonorrhea in the United States exceeded two million for the first time in 1970. To compound the problems, strains of *N. gonorrhoeae* increasingly resistant to penicillin and other antibiotics are appearing throughout the country. Schedules of treatment which were effective only a few years ago now result in a significant percentage of treatment failure. *In vitro* studies have demonstrated that resistance of *N. gonorrhoeae* may also develop to Trobicin.

Thus, while aqueous Procaine Penicillin G remains the drug of choice for the majority of patients, the need for a non-penicillin, intramuscular antibiotic for acute gonorrhea in the male and female is abundantly clear. Such an antibiotic should be effective following a single intramuscular injection —and it should not demonstrate cross-resistance with penicillin

Trobicin—a new alternative specifically for the treatment of acute gonorrhea

Trobicin is indicated in the treatment of acute gonorrheal urethritis and proctitis in the male and acute gonorrheal cervicitis and proctitis in the female when due to susceptible strains of *N. gonorrhoeae*.

High cure rates: 96% of 571 males, 95% of 294 females

No allergic reactions occurred in patients with an alleged history of penicillin hypersensitivity when treated with Trobicin, although penicillin antibody studies were not performed.

Chemically distinct

Trobicin is structurally not related to any other antibiotic commonly used to treat gonorrhea.

The assurance of a single-dose, physician-controlled treatment schedule

Intramuscular injections should be made deep into the upper outer quadrant of the gluteal muscle.

Adult male: Single 2 gram dose I.M. in acute gonorrheal urethritis. Single 4 gram dose I.M. (should be divided between two gluteal injection sites) in gonorrheal proctitis and in patients being re-treated after failure of previous antibiotic therapy. In geographic areas where antibiotic resistance is known to be prevalent, initial treatment with 4 grams intramuscularly is preferred.

Adult female: Single 4 gram dose I.M. (should be divided between two gluteal injection sites) in acute gonorrheal cervicitis and proctitis.

Safety for use in pregnancy has not been established, nor has safety for use in infants and children.

Clinical Results with Single-Dose Treatment, Intramuscularly* (Data compiled from reports of 14 investigators**)

	Dosage	Number of Patients	Number Cured	Percent Cured
Adult Males: Gonorrheal urethritis	**2 grams** **4 grams**	**475** **96**	**457** **93**	**96%** **97%**
Adult Females: Gonorrheal cervicitis	**4 grams**	**294**	**280**	**95%**

Diagnosis was confirmed by cultural identification of *N. gonorrhoeae* on Thayer-Martin medium in all patients. Criteria for cure: negative culture after at least 2 days post-treatment in males and at least 7 days post-treatment in females. Any positive culture obtained post-treatment was considered evidence of treatment failure even though the follow-up period might have been less than the periods cited above under "criteria for cure" except when the investigator determined that reinfection through additional sexual contacts was likely. Such cases were judged to be reinfections rather than relapses or failures. These cases were regarded as non-evaluatable and were not included in the table above.

The following reactions were observed during the single-dose clinical trials: soreness at the injection site, urticaria, dizziness, nausea, chills, fever and insomnia.

During multiple-dose subchronic tolerance studies in normal human volunteers, the following were noted: a decrease in hemoglobin, hematocrit and creatinine clearance; elevation of alkaline phosphatase, BUN and SGPT. In single and multiple-dose studies in normal volunteers, a reduction in urine output was noted. Extensive renal function studies demonstrated no consistent changes indicative of renal toxicity.

*4-gram doses were injected in two gluteal sites.

**Medical Research Files, The Upjohn Company

a chemically distinct antibiotic indicated specifically for treatment of acute gonorrheal urethritis and proctitis in males and cervicitis and proctitis in females when due to susceptible strains of *N. gonorrhoeae*

new Trobicin®

STERILE SPECTINOMYCIN DIHYDROCHLORIDE PENTAHYDRATE, UPJOHN

single-dose treatment for intramuscular use only

Sterile Trobicin®
(spectinomycin dihydrochloride pentahydrate)—For Intramuscular injection:
2 gm vials containing 5 ml when reconstituted with diluent. 4 gm vials containing 10 ml when reconstituted with diluent.

An aminocyclitol antibiotic active *in vitro* against most strains of *Neisseria gonorrhoeae* (MIC 7.5 to 20 mcg/ml). Definitive *in vitro* studies have shown no cross resistance of *N. gonorrhoeae* between Trobicin and penicillin.

Indications: Acute gonorrheal urethritis and proctitis in the male and acute gonorrheal cervicitis and proctitis in the female when due to susceptible strains of *N. gonorrhoeae*.

Contraindications: Contraindicated in patients previously found hypersensitive to Trobicin. Not indicated for the treatment of syphilis.

Warnings: Antibiotics used to treat gonorrhea may mask or delay the symptoms of incubating syphilis. Patients should be carefully examined and monthly serological follow-up for at least 3 months should be instituted if the diagnosis of syphilis is suspected.

Safety for use in infants, children and pregnant women has not been established.

Precautions: The usual precautions should be observed with atopic individuals. Clinical effectiveness should be monitored to detect evidence of development of resistance of *N. gonorrhoeae*.

Adverse reactions: The following reactions were observed during the single-dose clinical trials: soreness at the injection site, urticaria, dizziness, nausea, chills, fever and insomnia.

During multiple-dose subchronic tolerance studies in normal human volunteers, the following were noted: a decrease in hemoglobin, hematocrit and creatinine clearance; elevation of alkaline phosphatase, BUN and SGPT. In single and multiple-dose studies in normal volunteers, a reduction in urine output was noted. Extensive renal function studies demonstrated no consistent changes indicative of renal toxicity.

Dosage and administration: Keep at 25°C and use within 24 hours after reconstitution with diluent.

Male—single 2 gram dose (5 ml) intramuscularly. Patients with gonorrheal proctitis and patients being re-treated after failure of previous antibiotic therapy should receive 4 grams (10 ml). In geographic areas where antibiotic resistance is known to be prevalent, initial treatment with 4 grams (10 ml) intramuscularly is preferred.

Female— single 4 gram dose (10 ml) intramuscularly.

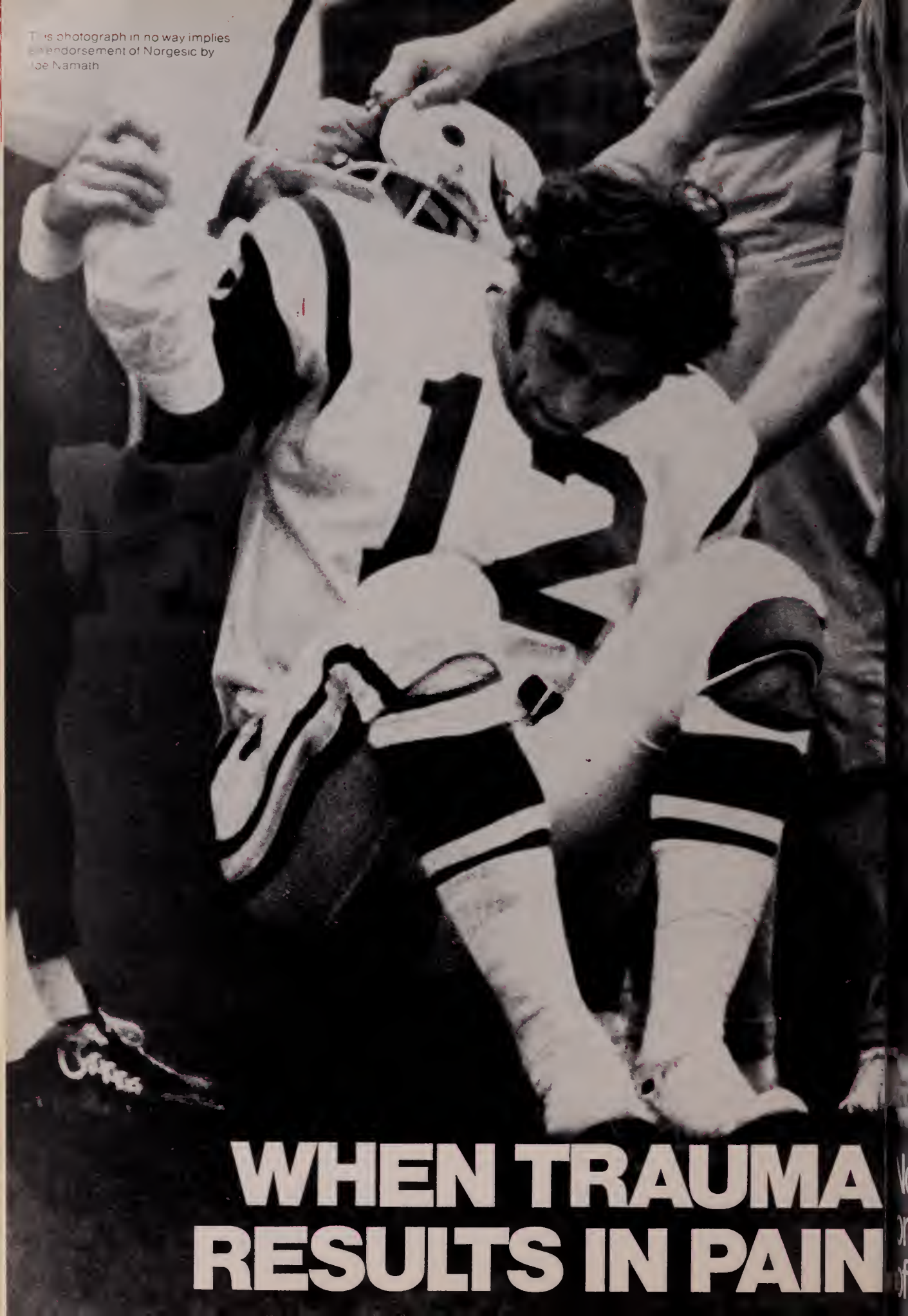
How supplied: *Vials, 2 and 4 grams —with ampoule of Bacteriostatic Water for Injection with Benzyl Alcohol 0.9%* w/v. Reconstitution yields 5 and 10 ml respectively with a concentration of spectinomycin dihydrochloride pentahydrate equivalent to 400 mg spectinomycin per ml. For intramuscular use only.

Susceptibility Powder—for testing *in vitro* susceptibility of *N. gonorrhoeae*.

Human pharmacology: Rapidly absorbed after intramuscular injection. A two-gram injection produces peak serum concentrations averaging about 100 mcg/ml at one hour with 15 mcg/ml at 8 hours. A four-gram injection produces peak serum concentrations averaging 160 mcg/ml at two hours with 31 mcg/ml at 8 hours.

For additional product information, see your Upjohn representative or consult the package insert. MED-B-1-S (LWB)

Upjohn
The Upjohn Company, Kalamazoo, Michigan 49001


This photograph in no way implies
endorsement of Norgesic by
Joe Namath
WHEN TRAUMA
RESULTS IN PAIN



NORGESIC®

(orphenadrine citrate, 25 mg.; aspirin, 225 mg.; phenacetin, 160 mg.; caffeine, 30 mg.)

the versatile analgesic

offers fast onset of symptomatic relief

produces a high level of analgesia

affords sustained pain relieving action

provides predictable relief—
overall satisfactory response in
approximately 80% of patients

Contraindications: Because of the mild anticholinergic effect of orphenadrine, Norgesic should not be used in patients with glaucoma, pyloric or duodenal obstruction, achalasia, prostatic hypertrophy or obstructions at the bladder neck. Norgesic is also contraindicated in patients with myasthenia gravis and in patients known to be sensitive to aspirin, phenacetin or caffeine.

Since mental confusion, anxiety and tremors have been reported in patients receiving orphenadrine and propoxyphene concurrently, it is recommended that Norgesic not be given in combination with propoxyphene (Darvon®).

Warnings: USE IN PREGNANCY: Since safety of the use of this preparation in pregnancy, during lactation, or in the child-bearing age has not been established, use of the drug in such patients requires that the potential benefits of the drug be weighed against its possible hazard to the mother and child.

USE IN CHILDREN: The safe and effective use of this drug in children has not been established; therefore, the physician must weigh the benefits against the potential hazards.

Precautions: It has been reported that prolonged or excessive use of phenacetin may result in nephrotoxicity. Caution, therefore, should be exercised when Norgesic is administered to patients with renal disorders. It should also be used with caution in patients with tachycardia.

Adverse Reactions: Side effects of Norgesic are those seen with APC or those usually associated with mild anticholinergic agents. These may include tachycardia, palpitation, urinary hesitancy or retention, dry mouth, blurred vision, dilatation of the pupil, increased intraocular tension, weakness, nausea, vomiting, headache, dizziness, constipation, drowsiness, and rarely, urticaria and other dermatoses. Infrequently an elderly patient may experience some degree of confusion. Mild central excitation and occasional hallucinations may be observed. These mild side effects can usually be eliminated by reduction in dosage. One case of aplastic anemia associated with the use of Norgesic has been reported. No causal relationship has been established.

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Warnings: May impair alertness; operation of automobiles and other activities made hazardous by diminished alertness should be avoided. If hypersensitivity reactions occur, drug should be discontinued immediately and not resumed; erythema multiforme, including Stevens-Johnson syndrome (with a fatal case), has been associated with thiabendazole therapy in children. Safe use in pregnancy or lactation has not been established.

Precautions: Since thiabendazole is metabolized in the liver and excreted by the kidneys, hepatic and renal function should be carefully monitored in patients with dysfunction of these organs.

Adverse Reactions: Frequently encountered are anorexia, nausea, vomiting, and dizziness. Less frequently, diarrhea, epigastric distress, pruritus, weariness, drowsiness, giddiness, and headache have occurred. Rarely, tinnitus, collapse, abnormal sensation in eyes, blurring of vision, hyperirritability, numbness, hyperglycemia, xanthopsia, enuresis, perianal rash, cholestasis and parenchymal liver damage, hypotension, and a transitory rise in cephalin flocculation and SGOT. Hypersensitivity reactions include: fever, facial flush, chills, conjunctival injection, angioedema, anaphylaxis, skin rashes, erythema multiforme (including Stevens-Johnson syndrome), and lymphadenopathy. Appearance of live Ascaris in the mouth and nose has been reported on rare occasions.

Some patients may excrete a metabolite which imparts an odor to urine, much like that which occurs after ingestion of asparagus. Crystalluria without hematuria has been reported on occasion, but has promptly subsided with discontinuation of therapy; while the etiologic role of thiabendazole has not been established, the possibility of crystalluria should be kept in mind. Transient leukopenia has been reported in a few patients, but the cause and effect relationship in these cases has not been established.

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The Journal is very proud of this special issue on pediatric oncology and is grateful to Drs. Talbert, Bloom and Wilkinson for their inspiration and guidance. Many thanks to all the authors for the time they have given producing the fine papers herein.—Ed.

Diagnosis and Treatment of Childhood Cancer

A Statewide Attack

James L. Talbert, M.D.

Twenty years ago infections far exceeded cancer as a major health hazard. Control and prevention of diseases such as poliomyelitis, diphtheria, pertussis, tetanus and measles now bring cancer to the forefront as a significant medical childhood problem. In fact, today, cancer is surpassed only by accidents as the leading cause of death in children between the ages of one and 14 years in the United States.

While the incidence of childhood cancer has increased somewhat, fortunately it has been matched by major breakthroughs in diagnosis and treatment. It is now possible to cure malignancies in children; malignancies which until recently were considered hopeless.

The rapid changes that are occurring in the field of childhood cancer treatment, however, pose a unique challenge for the practicing physician. First, he has little opportunity to maintain his competence in pediatric cancer care because the overall incidence of neoplasms in this age group is small. Second, the management of cancer in children is fundamentally different from that encountered in later life. In adults, for example, cancer of the lung, stomach, breast, reproductive organs and blood, predominate. Below the age of 15, however, the blood and blood forming organs, bone, kidney, central nervous system, adrenal medulla and eye are the usual sites of involvement. Even cancer of the same organ system may differ in the two age categories. Acute leukemia, for instance, is primarily of the lymphoblastic variety in children, and responds favorably to treatment in more than 90% of patients; in older individuals acute leukemia is usually myelogenous in origin and is more refractory to therapy. Because of these basic age dependent differences in the biology of malignant disease, specialized knowledge is required if children with cancer are to be afforded optimum medical management.

Children's Cancer Program

As recently as two years ago, few tumor centers in the southeastern United States were staffed

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with the diversified specialists required for comprehensive care of children with cancer. Since childhood malignancies may involve many different organ systems, the talents of specialists in pediatric surgery, radiotherapy, diagnostic radiology, hematology and oncology, pathology, psychiatry, endocrinology, immunology, and the surgical subspecialties must be available to cope with the complex and diversified problems which may be presented. Only two referral centers in Florida, 350 miles apart at Gainesville and Miami, provided this spectrum of care. Consequently, many of the pediatric cancer patient visits to these clinics each year necessitated travels over long distances. For the children who were ill for long periods, travel four to six hours or more on repeated occasions required unnecessary discomfort and hazard.

Because of these problems of transportation and communication, and because of the need to relate the care of childhood cancer more closely to the practicing physician, the divisions of pediatric surgery, hematology and oncology of the University of Florida College of Medicine initiated organization of a statewide children's cancer program. This proposal received enthusiastic support from the University of Miami School of Medicine and the University of South Florida College of Medicine and from practicing physicians throughout the state. With the interest and participation of these groups, the concept of a statewide program rapidly evolved.

The goals formulated by this group included:

1. Development of a comprehensive statewide Children's Cancer Program utilizing a coordinated network of specialized community units in all major population centers of Florida to work in close liaison with the University of Florida College of Medicine, University of Miami School of Medicine, State Tumor Registry, and University of South Florida College of Medicine in Tampa.

2. Provision of an efficient mechanism for identification and follow-up of children with cancer.

3. Dissemination of information on recent developments in cancer surgery, radiotherapy, and chemotherapy through a planned program in continuing education for community physicians.

4. Organization of a library of pertinent pathological material, x-rays and clinical data on all patients. This compendium of information provides a perpetual source of teaching material and facilitates long-term assessment of treatment regimens.

5. Establishment of an advanced training program in oncology for the development of clinical specialists in the areas of cancer surgery, radiotherapy, chemotherapy, and allied fields.

6. Assurance of adequate attention to the social and economic needs of the affected children and parents and their families through the development of statewide nursing and social service programs devoted exclusively to this problem.

7. Assurance that the most recent advances in basic research related to cancer can be readily available for the management of the pediatric tumor patient.

This plan of attack on the problem of childhood tumors was presented to the cancer task force of the Florida Regional Medical Program. Approval and funding was subsequently provided by that organization.

With the cooperation and counsel of Dr. Granville Larimore, State Director of the Florida Regional Medical Program, and Dr. Gordon Engerbretson, Associate State Director, the project was initiated in the summer of 1970. By March 1, 1971 cooperative childhood cancer units were established at Variety Children's Hospital in Miami, University of Miami School of Medicine, Tampa General Hospital (in liaison with the University of South Florida College of Medicine), University of Florida College of Medicine in Gainesville, and Hope Haven Children's Hospital in Jacksonville. Liaison was also established with the Pediatric Clinic of the Pensacola Educational Program, and planning was initiated for development of an additional children's cancer unit in that community. The Pensacola program is scheduled to be activated within the coming year.

Pediatric Tumor Clinics

The staff of each cooperating clinic includes participation by a pediatric hematologist/oncologist, surgeon, radiologist, and radiotherapist. In addition, a variety of pediatric and surgical specialists attend the clinic sessions and participate in patient management.

The five tumor clinics have provided a central consultation service for review of individual patient treatment and for telephone consultation by the community physicians. In addition, literature has been forwarded to physicians regarding individual cases when requested. Tampa and Jacksonville clinics also have inaugurated monthly seminars devoted to specific aspects of children's cancer care; these have been widely attended by community physicians.

The University centers at Miami and Gainesville also have encouraged community physicians from other localities to visit and participate in pediatric tumor clinic sessions in order to expand their knowledge in children's cancer management. In reality, therefore, these physicians are increasing their experience and providing an extension of the University units into their own localities.

In the first six months,* a total of 112 new patients and 1,263 return patient visits were monitored throughout the statewide network of children's cancer clinics. Continuing closed sheets on patient progress are not only maintained by the individual units in the program, but through a cooperative liaison which has been established with the State Division of Health, abstracts on all patients are forwarded to the State Central Tumor Registry. Through this system of mutual cooperation, it is anticipated that an accurate evaluation of the incidence of childhood cancer and results of treatment can be provided on a statewide basis.

Childhood Cancer Seminar

In addition to a variety of educational activities which have been inaugurated by the program, both at the local community level and throughout the state, an annual statewide seminar on the problems of childhood cancer is planned. The first such symposium on Pediatric Clinical Oncology will be held at the Miami Sheraton Four Ambassadors Hotel on December 10 and 11, 1971 under sponsorship of the Florida Regional Medical Program's Children's Cancer Project, University of Miami School of Medicine, Division of Radiation Therapy of Cedars of Lebanon Hospital, Department of Therapeutic Radiology in Miami, and the American Cancer Society. Information regarding this symposium may be obtained by writing the central office of the FRMP Children's Cancer Program in Gainesville.

Information regarding the Florida Regional Medical Program's Children's Cancer Project may be obtained by writing or contacting the following units:

Dr. James L. Talbert, coordinator; or Mr. J. Edward Brymer, administrator. Phone: (904) 392-3711, Division of Pediatric Surgery, University of Florida, Box 736 MSB, Gainesville, Florida 32601.

Dr. Kjell Koch. Phone: (305) 371-9611, Division of Pediatrics, University of Miami, Jackson Memorial Hospital, Miami, Florida 33124.

Dr. Albert H. Wilkinson Jr. Phone: (904) 396-2048, Hope Haven Children's Hospital, 5700 Atlantic Blvd., Jacksonville, Florida 32207.

Dr. M. G. Rajurkar. Phone: (305) 666-6511, Department of Pediatrics, Variety Children's Hospital, 6125 S. W. 31st St., Miami, Florida 33155.

Dr. Sorrell L. Wolfson. Phone: (813) 253-0827, 1 Davis Blvd., Davis Islands, Tampa, Florida 33606.

In summary, cancer in children has assumed increased significance in recent years and represents a major health hazard for this age group. Concomitantly, tremendous strides in diagnosis and treatment have been achieved, and a goal of the FRMP Children's Cancer Project is to provide each child affected by cancer in the state of Florida the latest expertise in the field. No longer is childhood cancer a hopeless condition, but one which, more often than not, poses an excellent prospect of cure. Recent advances as they pertain to each major area of childhood cancer involvement are outlined in subsequent articles in this issue.

▶ Dr. Talbert, University of Florida College of Medicine, Gainesville 32601.

* March 1 to August 1, 1971

Health, Education and Welfare Secretary, Elliot L. Richardson approved a proposed regulation to authorize insurance carriers to issue contracts for prepaid group medical service to persons in any state regardless of any restrictive state law.

Chemotherapy in Childhood Malignancies

Kjell Koch, M.D., Gerald E. Bloom, M.D. and Sorrell L. Wolfson, M.D.

During the past decade the outlook for children with most malignant diseases has vastly improved. To a large extent this has been accomplished through a coordinated effort by various disciplines whose individual talents have been amalgamated into a comprehensive team approach. The newest member of this team is the cancer chemotherapist whose successes in the treatment of many childhood malignancies have been unrivaled by those of his colleagues. In acute lymphoblastic leukemia, for example, the most common childhood cancer, great strides have been taken toward the ultimate cure. From a few years ago, the outlook has now improved to the extent that five-year survivals and perhaps cures appear within reach. In Wilms' tumor, lesions which are localized to the kidney are curable in nearly every instance because of highly effective chemotherapeutic agents. Even widely disseminated Wilms' tumors can be offered significant palliation and very likely the possibility of cure in some instances. Although Burkitt's lymphoma is rarely encountered in the United States, extensive experience with the use of chemotherapy in Africa with this lesion has led to a remarkable degree of success so that 40% of patients achieve permanent cure. Similar accomplishments have been experienced with other childhood tumors as well. Rhabdomyosarcoma, retinoblastoma, lymphoma and Ewing's sarcoma are all susceptible to a variety of chemotherapeutic agents and it is likely that as more experience is gained, these too, will be treated with a degree of success previously unobtainable. Despite these advances the use of chemotherapy in the treatment of other childhood malignancies, notably, neuroblastoma, brain tumor and osteogenic sarcoma, has had limited effect and clearly new agents and approaches must be developed if success in managing these lesions is to be achieved.

Unlike the treatment of infectious diseases where successful chemotherapy was realized in a relatively short period of time, the drug conquest of malignancies has progressed at a much slower pace. An important reason for this difference is the poor understanding which exists concerning the biochemical phenomenon surrounding malignant transformation. Studies of numerous biochemical pathways in tumor cells have failed to reveal significant deviations from normal which are susceptible to attack by chemical agents. In nearly all instances, normal cells as well as abnormal share the chemical pathways which are attacked by various antineoplastic drugs. Consequently the limited selective advantage in destroying larger numbers of abnormal than normal cells has resulted in a generally low therapeutic index and acceptance of considerable toxicity with many of the agents currently in use. This demands that the chemotherapist be intimately familiar with the toxic ramifications of drugs as well as the combinations of agents which are therapeutically synergistic but have different ranges of toxicity.

With few exceptions, the therapist has come to rely upon drugs which attack cells at the levels of protein biosynthesis and cell replication. This has been necessitated because malignant cells have lost their capability for differentiation and direct most of their energies toward biochemical activities which are universal to all cells. These fundamental processes have been elucidated in the past 20 years and have become known as the "central dogma of molecular biology." Briefly this states that nucleic acids are polymerized along with

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From the Departments of Pediatrics at the University of Miami School of Medicine and University of Florida College of Medicine.

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TABLE 1.—DRUGS USED IN TREATMENT OF CHILDHOOD MALIGNANCIES.

DRUGS	LIMITING TOXICITIES	SUSCEPTIBLE TUMORS	MODE OF ACTION
Alkylating Agents Nitrogen mustard (Mustargen) Chlorambucil (Leukeran) Triethylene melamine (TEM) Cyclophosphamide (Cytoxan) Thio-TEPA (THIOTEPA)	Myelosuppression Cystitis	Lymphomas Burkitt's lymphoma Ewing's sarcoma Acute leukemia Rhabdomyosarcoma Neuroblastoma Retinoblastoma	Reacts with essential intracellular functional groups, e.g., sulfhydryl, phosphate, carboxyl
Hormones Adrenal steroids (Prednisone)	Immunosuppression Growth arrest Psychosis Hypertension	Acute leukemia Lymphomas	Influences transcription of messenger RNA to protein synthesis
Antimetabolites 6-mercaptopurine (Purinethol) Methotrexate (Methotrexate) Cytosine arabinoside (Cytosar) 5-fluorouracil (Fluorouracil)	Myelosuppression Mucous membrane ulcerations	Acute leukemia	Blocks purine and pyrimidine synthesis
Antibiotics Actinomycin (Cosmegen, Dactinomycin) Daunomycin	Myelosuppression Cardiopulmonary	Wilms' tumor (Dactinomycin) Rhabdomyosarcoma (Daunomycin) Leukemia	Blocks RNA production
Plant Alkaloids Vincristine (Oncovin) Vinblastine (Velban)	Neurotoxicity Myelosuppression Gastrointestinal	Lymphoma, Leukemia Neuroblastoma Wilms' tumor Rhabdomyosarcoma Ewings sarcoma	Mitotic arrest
Miscellaneous L-asparaginase	Hypersensitivity, hepatotoxicity, hypoalbuminemia, coagulopathy	Leukemia	Hydrolyzes asparagine to aspartic acid
O,p'-DDD	Diarrhea, mental depression, tremors	Adrenal cancer	Inhibits production of adrenal steroids

() Trade Name

sugars and phosphates to form long double stranded helical molecules of deoxyribonucleic acid (DNA). DNA, which is the major component of cell nuclei, serves as a template for the production of transfer, ribosomal, and messenger ribonucleic acid (RNA). The genetic information contained within DNA molecules is transcribed to messenger RNA which in turn attaches to polyribosomes in the cytoplasm where the amino acid sequences of individual proteins (enzymes) are synthesized. These enzymes serve as catalytic agents for the various metabolic, structural and proliferative activities of the cell.

The antineoplastic agents effective in the treatment of various childhood tumors are characterized in Table 1. The majority of drugs act to either modify DNA function or to interfere with the biosynthesis of nucleic acids, the building blocks of DNA. A few have different modes of action, such as the vinca alkaloids, which function by disorganizing the mitotic spindle during the metaphase stage of cellular division. O,p'-DDD acts at a more differentiated cellular level by inhibiting the production of glucocorticoids and 17-ketosteroids. L-asparaginase is unique in attacking a biochemical requirement which is peculiar to certain neoplastic cells. These cells, unlike their normal counterparts, are unable to synthesize de novo L-asparagine which is an essential cellular requirement.

The toxicities from many drugs are related to their inhibitory effects on cell replication. For this reason, myelosuppression is a feature common to most agents and is the single most important side effect determining drug usage. Other commonly encountered, often limiting toxicities, are summarized in Table 1. In addition, multiple other side effects may be experienced and require a thorough familiarity if distinction from symptoms of the primary disease is to be confidently made.

In the following sections, the chemotherapeutic management of several childhood malignancies will be reviewed. In general, the manner in which drugs have been employed has changed as greater sophistication in their use has been achieved. In previous years, therapy consisted largely of single drugs which were administered on a continuous basis. Gradually it was learned that combinations of agents, up to four and five in number, and pulse types of intermittent therapy were more successful in many malignancies than earlier dosage regimens. These therapeutic principles will become evident as individual tumors are discussed.

LEUKEMIA

The definite progress in management of childhood leukemia during the last decade is clearly evidenced by the increase in rate and duration of remissions,[1] improvement in mean survival time[1] and greater number of long survivors.[2] Conventional therapy has been replaced by aggressive treatment in an effort to attempt a maximum leukemic cell kill, an approach derived from the studies of Skipper, Schabel and Wilcox[3,4] and other investigators.[5,6] The possibility that acute leukemia has become a potentially curable disease is a recently proposed concept[6a] which cannot be discarded as invalid and therapy today should aim at that objective. Nevertheless we still must be aware that the majority of children with leukemia will eventually succumb to the disease.

Although chemotherapy forms the basis for the treatment of leukemia, there are other recognized factors which are also responsible for the overall progress in the management of this disorder. Of vital importance is control of serious complications such as hemorrhage and infection. To this effect the availability of platelet replacement[7] and effective anti-infectious agents have certainly improved the care of the leukemic patient. The addition of granulocyte transfusions, available in some centers, has reduced the mortality to infections in the presence of severe granulocytopenia. Some institutions have incorporated protective environmental measures such as the laminar air flow rooms in order to decrease the risk of infections during periods of high risk.[7a] Areas of the body which are not susceptible to systemic chemotherapy, such as the central nervous system, and which may be potential foci of leukemia are now incorporated in this scope of therapy by the use of prophylactic irradiation or intrathecal administration of methotrexate. Experience in this respect has been encouraging in improving the duration of remissions.[33]

Although still in the experimental stage immunotherapy is developing as an encouraging new modality complementing chemotherapy. Most of the clinical experience is based on the work of Mathe from France[8] who injected BCG vaccine or pooled irradiated allogenic leukemic cells into patients in state of remission induced by chemotherapy. In his report 40% (8 out of 20) of patients treated were alive with no evidence of dis-

ease from one to four years since the initial remission.

The prognosis of acute leukemia is not solely dependent on optimum management.[8a] There is evidence that other factors such as the level of the initial total white cell count and the morphologic cell type influence the outcome of the disease.[9,10] Patients with white cell counts over 20,000 per cubic mm. have a shorter survival time as compared with patients exhibiting initial counts below that figure. In relation with the morphologic cell type, the acute lymphocytic variety has the best prognosis. This form of leukemia is the most frequent in incidence together with the undifferentiated type representing approximately 85% of all types of childhood leukemia. Of the rest, about 10% are granulocytic including the myelomonocytic varieties and not over 1% are acute monocytic, this latter form having the worse prognosis. Chronic forms of leukemia are very rare in children not representing more than 5% and being almost always of the myelogenous type.

Once the diagnosis of acute leukemia has been established by bone marrow examination, a plan of chemotherapy is designed in order to attempt a maximum leukemic cell kill, which in turn will provide the conditions for an optimum remission. Most therapists define complete remission as a marrow exhibiting normal cellularity and containing not more than 5% of leukemic cells, not more than 40% of lymphocytes plus leukemic cells, and evidence of adequate hematopoiesis. A partial remission marrow contains over 5% and not over 25% of leukemic cells, or over 40% of lymphocytes plus leukemic cells. A relapsed marrow is one with more than 25% leukemic cells. During a complete remission the patient is free of symptoms and signs related to the disease.

Since the use of folic acid antagonists by Farber[11] in 1947 many other chemotherapeutic agents have appeared which are capable of inducing remissions in childhood leukemia. The most important are methotrexate, prednisone, 6-mercaptopurine, thioguanine, cyclophosphamide, vincristine, cytosine arabinoside, daunomycin and L-asparaginase (Table 1). Each drug has a different mode of action and different dosage, indications and toxicity. Methotrexate is the most important among the folic acid antagonists. It interferes with conversion of folic acid to folinic acid, this last being necessary for transfer of one-carbon fragments in many reactions, and ultimately blocks purine ring biosynthesis. Vincristine, a plant alkaloid, acts by arresting mitosis. 6-mercaptopurine and thioguanine are purine antagonists preventing purine ring biosynthesis and interconversion of the purine bases. Cytosine arabinoside is a pyrimidine antagonist which interferes with the formation of deoxytidylic acid through blocking the enzyme DNA polymerase. Cyclophosphamide is an alkylating agent which acts by binding to DNA and interrupting DNA and RNA synthesis. Daunomycin is a streptomyces-derived antibiotic capable of inhibiting DNA. L-asparaginase is an enzyme that through hydrolysis converts the amino acid asparagine into aspartic acid; as a consequence cells that cannot synthesize their own asparagine, as normal cells do, will eventually starve and die.

It is well recognized that a combination of drugs permits a higher rate of remission than the use of a single drug (Table 2).

It has been estimated that prior to therapy the leukemic cell population is approximately one trillion or 10^{12} (12 logs). Optimum chemotherapy in acute lymphocytic leukemia kills an average of 10 logs, and in about 25% of cases may kill as much as 12 logs leaving a few thousands leukemic cells alive. The average doubling time for acute lymphocytic leukemic cells is estimated to be four days[11] indicating that the regrowth of one cell to 10^{12} should require about 40 doublings which should occur, according to arithmetical calculation, in approximately six months. Certainly more knowledge is needed concerning the kinetics of neoplastic cells in order to devise more effective chemotherapy.

Table 2.—Remission Induction Rate With a Single Agent and Combined Therapy for Patients With Acute Leukemia.

Agent	Rate of Remission (%)
Cytosine arabinoside[18]	16-24
Methotrexate[36,37]	22
Cyclophosphamide[38,39]	20-30
6-mercaptopurine[40,41]	35
Daunomycin[45]	60
Prednisone[34,35]	50-60
Vincristine[42,43]	50-60
L-asparaginase[44]	62
Cyclophosphamide + prednisone[47]	76
Methotrexate + prednisone[48]	80
Mercaptopurine + prednisone[48]	90
Vincristine + prednisone*[49,50]	90

*The addition of daunorubicin[51,52] or L-asparaginase to this combination has increased the remission rate to almost 100%.

Management of Acute Lymphocytic Leukemia

At present it seems that the combination of vincristine (in a dose of 2 mg. per meter square, weekly, intravenously) and predisone (in a dose of 40 mg. per meter square, p.o., daily) is the preferred mode of initiating therapy in cases of acute lymphocytic leukemia. The rate of remission is approximately 90% and this is usually accomplished in a period of four to six weeks.

Lately there has been some suggestion that dexamethasone may be preferable to prednisone as it relates to infection such as sepsis and gram negative shock,[12] although the antileukemic effect may be the same. The rate of remission may increase to near 100% if daunorubicin[13] or L-asparaginase are added to the vincristine-steroid combination. Because of the serious toxicity related to daunorubicin and L-asparaginase these drugs should be used with caution. Induction of remission may also be initiated with 6-mercaptopurine in combination with prednisone, this combination having a remission rate also close to 90%. It should be pointed out that the myelosuppressive effect of 6-mercaptopurine is greater than vincristine and, therefore, is more prone to enhance infection.

Supportive therapy is an important aspect of management during the induction phase of remission. The patient is in potential danger of infection and hemorrhage, complications related basically to depression of granulocytes and platelets as a result of marrow leukemic replacement and later by the effects of chemotherapy. It is important that while the patient is in relapse, therapy should continue at the same dosage despite the presence of significant leucopenia, unless the hypocellularity of the marrow and pancytopenia are too severe. Another complication which may occur during the initial phase of therapy is hyperuricemia. This originates in the rapid breakdown of leukemic cells resulting in an increase in concentration of uric acid in the serum and in the urine. The increased urinary excretion of urates may lead to crystallization of uric acid in the renal tubules with consequent obstruction and renal failure. Measures to avoid this complication include adequate fluid intake and the use of allopurinol, a xanthine oxidase inhibitor that blocks the production of uric acid from xanthine and hypoxanthine. Because allopurinol also inhibits the degradation of mercaptopurine to thiouric acid, it is recommended to reduce the dose of 6-mercaptopurine by 75% if this agent is used concomitantly with allopurinol.

Once a complete remission is obtained the inducer drugs such as vincristine and prednisone may be discontinued in order to avoid the appearance of serious toxicity prone to occur with its further use. This measure also will permit use of these drugs again in case of relapse.

Experience has demonstrated that unmaintained remissions are shorter in duration as compared to remissions maintained on continuous drug therapy. At this point it is pertinent to mention that the duration of an unmaintained remission is dependent on the number of residual leukemic cells at the end of therapy. Regimens such as VAMP[14] and BIKE,[15] in which the induction of remission was accomplished with intensive combined chemotherapy designed for optimum cell kill, resulted in longer unmaintained remissions as compared to remissions obtained by previous conventional methods of therapy. Later in 1966 Henderson devised the POMP regimen,[16] in which intensive intermittent therapy applied during remission resulted in longer remissions as compared to the VAMP and BIKE schemes. These and further experiences lead to the concepts of condensation, intensification, maintenance and reinducer therapy which are now integrating the design of modern therapy.[16a] During the intensification phase sequential courses of methotrexate, mercaptopurine and cyclophosphamide in high doses may be used. Subsequently the same drugs may be employed in order to maintain the remission, either singly or combined. In comparing the duration of remissions maintained with single agents, it has been demonstrated that the intermittent administration of methotrexate in a dose of 30 mg. per m^2 p.o. twice a week produces longer remissions than if the same drug is given on a daily basis.[17] The recommended dose for 6-mercaptopurine is 90 mg. per m^2 p.o. per day. When this drug is used in combination with methotrexate, this latter agent may be used in a dose of 15 mg. per meter square p.o. once a week. Experience has also shown that the use of reinducer courses of vincristine plus prednisone given periodically during the maintenance phase appears to increase the duration of remissions.

If relapse occurs, another remission can be attempted with agents such as vincristine, prednisone, daunomycin and L-asparaginase in combined fashion. Subsequently other regimens may be employed during maintenance.

As a consequence of this intensive therapy approach, the median survival time of acute lymphocytic leukemia of childhood has certainly increased dramatically. Before 1947 the median survival time was estimated at two months and at present it has reached an approximate figure of three years. It is also quite encouraging that the number of long survivors is increasing. Burchenal[2] has reported 159 cases of long survivors both in adults and children with acute leukemia. These patients were treated in various ways and not necessarily with the most modern drugs or regimens. Of these patients 60% showed no evidence of disease eight to 20 years after the diagnosis of acute leukemia was made. Certainly this important observation implies the possibility of cure, a concept which was not accepted a decade ago.

Management of Acute Granulocytic Leukemia

Progress in the management of acute myelogenous leukemia has been significantly slower compared to the achievements obtained in acute lymphatic leukemia. Several drugs used either singly or combined have been found effective in producing remissions, although the duration of the same have not improved impressively.[18,20] Table 3 summarizes the effectiveness of some agents capable of inducing remissions in acute myelogenous leukemia. At present it seems that the combination of cytosine arabinoside and thioguanine represents the therapy of choice.[20] Cytosine arabinoside or Ara-C is more effective in a dose of 50 to 100 mg. per m^2 per day in one hour infusion. Gastrointestinal manifestations and bone marrow depression constitute the more important toxic effects. The recommended dose for thioguanine is 2.5 mg. per kilo-body weight per day given orally. The dose of the drug is not affected by the use of allopurinol, as occurs with mercaptopurine.

Table 3.—Remission Induction Rate With a Single Agent and Combined Therapy for Patients With Acute Myelogenous Leukemia

Agent	Remission Rate (%)
L-asparaginase[22]	10-15
Ara-C[18,19-25]	25-33
VAMP*	40
Daunorubicin[23,24]	43
Ara-C + Thioguanine[20-25]	50

* V = vincristine, A = amethopterin, M = mercaptopurine, P = prednisone

Maintenance of remission in acute myelogenous leukemia may be attempted with Ara-C in a dose of 30 mg. per m^2 subcutaneously on a weekly basis, plus thioguanine in the same dose as used during induction of remission. Modification of dosage will be dependent on the peripheral blood level of leukocytes and platelets.

Management of Central Nervous System Leukemia

The incidence of meningeal leukemia reportedly varies between 16% to 42%[26-28] in patients with acute leukemia and appears to increase as the total survival time improves. Development of this complication has been explained on the basis that the effect of adequate systemic chemotherapy for leukemia is essentially excluded from cerebrospinal fluid by the "blood brain" barrier. Nevertheless some drugs such as the adrenocorticosteroids, when administered systematically, are able to cross the barrier and penetrate in the cerebrospinal fluid and thus affect leukemia infiltration in the meninges. Similarly, experience with 1,3-bis (2 chloroethyl)-1-nitrosurea (BCNU) indicates that this drug may also be effective in CNS leukemic disease[31] but because of its serious toxicity, use in this respect is limited. The control of meningeal leukemia can be achieved with the use of irradiation and the intrathecal administration* of methotrexate.[28-30] Both modes of therapy are effective in controlling episodes of central nervous system meningeal leukemia in approximately 95% of cases.[30] Unfortunately, recurrences are frequent regardless of the modality employed. In recent years the concept of prophylaxis of central nervous system leukemia has been advocated and this approach is now incorporated in the total scope of therapy[33] in the majority of cancer centers with the implication that it improves the duration of remissions.

NEUROBLASTOMA

Neuroblastoma is one of the most highly malignant tumors encountered in pediatrics causing approximately 8% of all cancer deaths in children aged 1-14 years. It is second in frequency only to central nervous system malignancies among solid tumors of childhood. Neuroblastoma arises from the ganglion cells of the sympathetic

*The recommended dose for intrathecal methotrexate is 12 mg. per m^2 on a weekly basis until normalization of the CSF changes and disappearance of the clinical manifestations.

nervous system and may originate from any location where these cells are normally present. The adrenal gland is the most common site and accounts for 40% of all cases. Ten per cent arise from the paravertebral tissues of the thorax and 5% from the retroperitoneal sympathetic chain. The pelvic nerves are the origin in 6% and the cervical region in 2%. Neuroblastoma characteristically metastasizes early and widely and in 15% of patients the primary tumor cannot be identified.

Approximately 50% of neuroblastomas occur during the first two years of life and 75% within five years of age. Thereafter only isolated cases are encountered.[53] There is no sex predilection. The initial clinical manifestations are either those of the primary tumor which usually presents as a mass lesion or metastatic disease which may involve bone, lymph nodes, liver, bone marrow, central nervous system, lungs, skin, and rarely other organ systems. Occasionally, symptoms secondary to the increased catecholamine excretion found with this tumor, such as diarrhea and hypertension, are prominent. Primary tumors of the abdomen manifest in either flank as a large mass which is firm in consistency and has a lobulated configuration. In contrast to Wilms' tumor the medial border of neuroblastoma often crosses the midline of the abdomen. Skin involvement, neurological impairment, respiratory difficulty, impaired gait, exophthalmus and pathologic fractures may present as initial manifestations of the disease or appear during the course of the illness. Occasionally, bone marrow metastases may be widespread and a leukemic picture may predominate.

Roentgenograms of the abdomen, as in the case of an adrenal mass, often show a posterior and laterally placed lesion with microcalcifications. Intravenous pyelography reveals displacement of the kidney downward with the renal pelvis showing evidence of external compression. Skeletal survey may show lytic lesions of the skull and femurs initially, although all bones may eventually be involved. Bone marrow examination may reveal typical clumps of neuroblastoma cells. Increased urinary excretion of catecholamines, particularly vanilmandelic acid and homovanillic acid, is a very sensitive test for the detection of neuroblastoma. One or both of these excretory products are present in 95% of affected patients.[54] This determination is also useful in following the course of the disease. If the tumor is successfully controlled, these metabolites return to normal levels within three months and recur only if metastases appear.

The prognosis of neuroblastoma is intimately related to the age of the patient and extent of the disease at diagnosis. Unlike the experience with neoplasms in adult life where it is customary to wait five or even ten years before considering a patient cured, the accelerated proliferation of childhood neoplasms allows a shorter period of follow-up before a child is thought to be cured. In the case of neuroblastoma, evidence suggests that the majority of patients who survive beyond two years after treatment is initiated and show no evidence of recurrence are very likely cured.[53] The majority of deaths actually occur during the first 12 months after diagnosis is established, so that survival without disease beyond this period of time may be viewed with cautious optimism. The age of the patient at diagnosis is an important index of prognosis. The younger the child, the more favorable the outlook. In patients under a year of age without bone metastasis, a high cure rate may be expected. In contrast, older patients usually present with disseminated disease and cures are very infrequent.

The extent of the disease at the time of diagnosis is probably the single most important prognostic indicator. Tumor staging according to the extent of involvement correlates well with the eventual outcome.[55,56] With tumors confined to the organ of origin (Stage I), 84% two year survivals have been observed. In those tumors which extend beyond the structure of origin to homolateral lymph nodes (Stage II), 66% survivals may be expected. In those tumors extending beyond the midline which may involve bilateral lymph nodes (Stage III), 33% of patients may be expected to live beyond two years. With distant disease involving the skeleton, soft tissues, viscera and distant lymph nodes (Stage IV), the survival rate is only 5%. Recently the Children's Cancer Study Group A has observed an additional group with involvement of the liver, skin or bone marrow, but no skeletal metastases (Stage IV-S) who had a surprisingly high survival rate of 84%.[55]

Three modalities of therapy are currently available for the treatment of neuroblastoma—surgical extirpation, radiotherapy and chemotherapy. Earlier enthusiasm for cyanocobalamin (vitamin B_{12}) has proven unfounded.[57,58] Complete surgical removal, when possible, is the therapy of choice. If this can be achieved, the

likelihood of permanent cure is good. Unfortunately 70% of patients present with disseminated disease at the time of diagnosis so that complete surgical removal is not possible.[59] Although neuroblastoma is usually a highly radiosensitive tumor, the high frequency of early dissemination does not often permit curative treatment with this type of therapy. Radiation therapy of neuroblastoma is discussed in greater detail elsewhere in this symposium.

Several chemotherapeutic agents are known to be effective in the treatment of neuroblastoma. However, the role of drug therapy in this tumor has yet to be clearly established since the high cure rate observed with surgery and local radiation in Stages I, II, III can be achieved without the use of chemotherapeutic agents.[60] Whether drugs are capable of increasing the survival rate in these more favorable groups has not yet been determined. The influence of drugs on the treatment of metastatic neuroblastoma (Stage IV) has been, in general, disappointing. The drugs most commonly employed have been vincristine and cytoxan, either individually or in various combinations and alternating regimens. A recent collaborative study conducted by the Acute Leukemia Study Group B in 48 patients with generalized disease indicated an objective response in 55% of patients treated with either sequential, concurrent or alternating therapy using vincristine and cytoxan. A complete remission rate of 25% was achieved. Although the median survival times were increased from 126 days in patients showing no response to 427 days in those demonstrating either complete or partial remissions, a concomitant reduction in mortality rate was not clearly demonstrated.[59] In addition, the experience with several chemotherapeutic agents in patients with Stage IV-S disease, which has an unusually favorable prognosis, suggests that drug therapy may be detrimental to patients' recovery.[55]

Considerable interest has developed recently over the natural host defense mechanisms which may participate in the spontaneous regressions observed in some patients with neuroblastoma. Clinical maturation of neuroblastoma to a benign ganglioneuroma has been occasionally seen in patients and it has been suggested that this might be a frequent subclinical occurrence in young infants.[61] Although this process is rare in patients with skeletal involvement, its occurrence in infancy where spontaneous cures are not uncommon may represent a real phenomenon. It has been suggested that the prolonged survival which can be achieved with chemotherapy may be of importance in allowing more time for these host defense mechanisms to become effective.[62]

In contrast, other evidence suggests that a host-tumor interaction occurs in neuroblastoma and that the resulting immunologic response may be an important factor in spontaneous regressions of this tumor. It has been demonstrated that lymphocytes from patients with neuroblastoma are capable of inhibiting the growth of neuroblastoma cells in tissue culture.[63] It is possible that vigorous treatment with immunosuppressive agents may interfere with this lymphocytotoxic effect which may be important in the patient's response to his tumor.

Clearly, the role of chemotherapy in the treatment of neuroblastoma has yet to be determined. A meaningful increase in survival rate has not been demonstrated with any agents which are currently available. Although it has been demonstrated that prolongation of survival may be achieved with certain drugs, the potential hazard of suppressing natural host defense mechanisms, especially in those patients where the predictive survival is high, must be given careful consideration. Initial therapy should include removal of the primary tumor if its location is known. Close attention to the extent of the lesion should be paid so that accurate staging can be determined. Local radiation to the tumor bed, if complete surgical removal is not possible, should be given. Drug therapy appears most appropriate in those patients who have demonstrable tumor cells in their bone marrows but no roentgenographic evidence of bony metastases.[55] Hopefully, chemotherapy will ablate these cells before they are able to proliferate and produce x-ray evidence of skeletal involvement.[64] In our opinion, drug therapy should be of moderate intensity in these patients so as to preserve the patient's own response to the tumor. It is our current practice to administer cyclophosphamide, 2 mg. per kilogram per day by mouth. Drug therapy in the advanced stages of neuroblastoma is indicated for palliation. A combination of vincristine and cytoxan as previously described appears most appropriate.[59]

Hopefully, newer agents and combinations of current drugs will prove of greater value for the treatment of neuroblastoma in the future. It is especially hoped that currently unexplored modalities of therapy based upon our current knowledge

of immunologic defense mechanisms will become available.

WILMS' TUMOR

Wilms' tumor accounts for approximately 5% of all childhood malignancies. As in the case of neuroblastoma, this tumor also demonstrates several biological peculiarities which must be recognized during the course of management. Historical aspects of Wilms' tumor which have evolved during the past 15 years are of special interest as they illustrate the concept that certain childhood malignancies are highly susceptible to currently available modalities of therapy and that a combined approach by the pediatrician, surgeon and radiotherapist is essential to achieve optimal results.

The initial manifestation of Wilms' tumor is usually an abdominal mass in an otherwise healthy appearing child. Because these tumors usually remain asymptomatic, they may reach huge proportions before clinical recognition. The mass usually presents as a smooth, rounded tumor which is confined primarily to one side of the abdomen. The lesion remains freely movable unless fixation to the diaphragm, liver, or other abdominal structures occurs. Other presenting manifestations occasionally occur with Wilms' tumors and rarely may dominate the clinical picture. Abdominal pain may be present if necrosis, ureteral obstruction, hemorrhage or invasion of local tissues occurs. Occasionally the tumor may rupture with extensive abdominal hemorrhage and a mistaken diagnosis of splenic rupture or an acute surgical abdomen is made. Hypertension has been reported in 50% of patients with Wilms' tumor although its etiology has not been clearly defined.[65] Fever, hematuria, urinary frequency, and clinical evidence of intra-abdominal compression of various organs may present as the local lesion expands.

Abdominal x-ray usually reveals a unilateral mass which may show evidence of calcification. Intravenous pyelography demonstrates renal displacement or alteration of intrarenal architecture. Anemia, hematuria and bone marrow invasion with metastatic tumor cells have been described. Occasionally cell blocks of urinary sediment may reveal tumor cells in those instances where the tumor has invaded the renal pelvis.[66]

Of great theoretical interest is the occasional association of Wilms' tumor with congenital malformations including aniridia, hemihypertrophy and genitourinary malformations.[67] The additional findings of Wilms' tumors in fetuses and newborn infants along with a peak incidence during early childhood has suggested the possibility that a prenatal influence which is both oncogenic and teratogenic may be characteristic of the etiologic agent for this malignancy.[68]

Wilms' tumors are characterized by a tendency to metastasize early, either by way of the blood stream or regional lymphatics to involve abdominal lymph nodes, lung, liver, the opposite kidney, and bone. Rarely the brain, spleen and intestines may be invaded. As with neuroblastoma, the extent of the tumor at the time of initial diagnosis is of prime importance in determining prognosis and planning therapy.[69,70] Accurate staging is a team effort and requires detailed analysis by the surgeon, clinician, pathologist and radiologist. Categorization of Wilms' tumor into the following four stages has proven useful:

Stage I. The tumor is confined entirely within the kidney and is completely removed at surgery. The renal capsule is intact and no tumor is apparent beyond the margins of resection.

Stage II. The tumor is completely resected, however, extension has occurred beyond the confines of the kidney. Penetration to the perirenal fat or periaortic lymph nodes has occurred and the renal vein may contain tumor thrombi although residual tumor is not apparent beyond the area of resection.

Stage III. Complete surgical removal is not possible. The tumor may have ruptured before or during surgery and there may be implants on peritoneal surfaces with involved lymph nodes beyond the periaortic chain.

Stage IV. The tumor has extended beyond the confines of the abdomen and hematogenesis metastases are demonstrable in the liver, lung, bone, or brain.

The high rate of curability in the majority of patients with localized Wilms' tumors demands an expeditious workup to avoid the hazard of dissemination. Preoperative differentiation from other abdominal masses can usually be established from roentgenograms of the abdomen, chest, skull, and long bones, inferior venacavography,[71] isotopic scans[72] and renal arteriography.[73] Although these procedures are often very helpful in the evaluation of patients prior to surgery and in guiding the surgeon during the operative procedure, their performance should not entail unnecessary delay in definitive therapy and particularly should not be associated with excessive manipulation of the tumor mass. Unnecessary palpation of the lesion is apt to dislodge small clumps of cells from the tumor which may enter the venous circulation and disseminate to distant sites.

Proper planning for the management of a child with Wilms' tumor demands a clear understanding of the biological behavior of this neoplasm. Already mentioned is the importance of metastatic spread through lymph node or venous channels. Recently it has become apparent that Wilms' tumors which present prior to the third month of life are unusually benign in behavior. None of the reported newborns and older infants in this category have shown evidence of metastatic disease.[74,75] The explanation of why renal tumors in very young infants, which may appear histologically identical with Wilms' tumor, remain localized whereas histologically similar tumors in older children are characterized by metastatic spread is unknown. Perhaps host defense mechanisms analogus to the young infant's response to neuroblastoma are operative in this tumor as well and account for this phenomenon. Regardless of the explanation for these atypically behaving lesions, it is essential to recognize the fact that they occur as a distinct entity during the early months of life and that their inability to metastasize is a fundamental characteristic which is instrumental in planning therapy.

Perhaps as in no other tumor is close harmony between the surgeon, radiotherapist, and chemotherapist required to achieve optimal therapeutic results than in Wilms' tumor. The surgical and radiotherapeutic management is considered elsewhere in this symposium. The era of effective chemotherapy began in 1955 with the demonstration by Farber that actinomycin-D is an effective chemotherapeutic agent in Wilms' tumor.[76] The major aim of chemotherapy is to prevent the occurrence of metastases which originate from the main tumor mass as isolated clumps of tumor cells. These may enter the vascular stream and be transported to distant body sites where they proliferate and become established as growing tumors. With the use of an antineoplastic agent such as actinomycin-D the dislodged tumor cells are rendered incapable of proliferation prior to their implantation and subsequent growth. In view of the central importance of this therapeutic modality to the ultimate outcome of the disease, prompt administration of chemotherapy as soon as the diagnosis is established should be initiated. The total dose administered is 0.075 milligrams per kilogram given as five equal daily doses. A similar course is repeated every two months for a total of two years. In general, actinomycin-D has proven to be a relatively safe drug if used in the recommended dosage. Although bone marrow suppression is the most frequent side effect, a variety of renal, hepatic and abdominal complaints have been described. If administered concomitantly with radiotherapy, a synergistic effect between these two forms of treatment has been occasionally observed with the development of an acute dermatologic reaction. In addition to actinomycin-D, other agents such as vincristine have also been shown to be effective.[77]

With the advent of highly effective modalities of therapy, the optimal regimen to be employed in each patient depends upon the extent of the lesion at the time of diagnosis. A prospective study evaluating various combinations of surgery, radiotherapy, and chemotherapy in Wilms' tumor in various stages is currently in progress by a National Wilms' Tumor Study Group. The final results of this investigation should provide important guidelines to the specific management of individual patients. A rational program of therapy which is based on the stage of the tumor, however, can be devised from currently existing data. Complete surgical removal should be attempted in all patients where the disease appears confined to the abdomen and is the only essential treatment for congenital Wilms' tumor. If the tumor is stage I and the patient is three to 18 months of age, actinomycin-D should be given immediately postoperatively and given every two months for a total of two years. X-ray therapy is not administered.[78] In stages I and III therapy wtih actinomycin-D should be initiated immediately after surgery and given every two months for two years. In addition, radiotherapy to the renal bed and other intraabdominal sites where tumor is present should be given at a dose commensurate with the size of the child. With stage IV disease, initial surgery depends on the clinical circumstances. If a well defined tumor can be identified, surgical removal of the bulk of the lesion should be attempted. Radiotherapy combined with chemotherapy as described for stages II and III should be initiated.

Following initial completion of therapy, close follow-up is essential to detect the presence of metastatic disease. The two most common sites for metastasis to appear are the lungs and liver. Accordingly, monthly chest roentgenograms are an integral component of the follow-up period. Isotopic liver scans and possibly hepatic arteriography may be of value in detecting occult liver involvement. The judicious use of these diagnostic tools has proven of value in selected cases.[78]

The results of effective therapy for Wilms' tumor have shown a progressively brighter pattern during the past several decades. When surgery was the only available therapy, the two year survival rate was 36%. At the present time, a multimodal approach with varying combinations of surgery, radiotherapy, chemotherapy, in addition to recognition of the biological characteristics of the tumor, has resulted in two year cure rates up to 100% in Stage I, 80% in Stages II and III, and 50% or greater in Stage IV.[79,80] (Two year survival rates are considered synonymous with cure in Wilms' tumor.) These extraordinary results of therapy in Wilms' tumor represent a milestone in pediatric tumor management and demonstrate the great accomplishments that can be achieved through a multidisciplinary approach.

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Physician Shortage Areas

The AMA supports legislation that would provide federal aid to individual or small groups of physicians in establishing medical practices in rural areas, small towns and low income inner-city areas.

The legislation (S. 2269) would amend the National Housing Act to authorize mortgage insurance for the construction and rehabilitation of medical facilities for the practice of one to four physicians in physician-shortage areas. In 1966, mortgage insurance was authorized for establishment of nonprofit group practices. The current legislation would extend that program.

Radiotherapy of Childhood Cancer

Mead F. Northrop, M.D. and Herbert F. Johnson, M.D.

The irradiation of malignant tumors arising in children whose normal tissues must continue to grow and develop demands comprehension of the biologic behavior of a group of rather unique neoplasms and recognition that the tolerance of actively growing tissues to radiation is often at variance with the more familiar limits in adults. The physical interaction of ionizing radiation with atoms comprising mammalian tissues is not dependent upon the age of the organism; however, the biologic expression of such interactions varies tremendously not only with age but with the tissue in question.

The earlier medical literature contains numerous tragic examples of late sequelae of irradiation administered during early childhood. Indeed, some of the most disastrous results have occurred as a by-product of the utilization of high doses of radiation to treat benign disease—a practice which with very few exceptions is now condemned. Children irradiated in the present era with megavoltage equipment, if cured, can be expected to mature with minimal deformity because the doses which growing tissues will tolerate are now well understood.

There is no area of oncology where optimum treatment is more dependent upon the coordinated efforts of the referring physician, surgeon, chemotherapist, and radiotherapist. Each specialist must recognize the limitations of his own particular therapeutic method and be cognizant of the potential of alternative modes of therapy. Recent advances in pediatric oncology are ample testimony to such ecumenical practices. Occasionally the most sagacious radiotherapy opinion is to decline to treat a given patient. Radiotherapists should be given the same license to select their patients that has long been granted to their surgical colleagues. There is no justification for embarking upon a course of radiotherapy in a hopeless situation "just to be doing something" or as a form of psychotherapy for an aggrieved family or frustrated referring physician.[1]

Normal Tissue Tolerance

The radiotherapist's technical skill and ingenuity are tested when formulating treatment plans for children which provide for adequate irradiation of the tumor-bearing volume and at the same time minimize the dose to the adjacent normal tissues. Meticulous attention to the construction of appropriate lead shielding, confirmed by radiographs documenting the path of the beam through the patient, and close supervision of the technical staff are mandatory if late sequelae are to be minimized. A child should never be irradiated without first undertaking a thorough, honest discussion of the risks involved with the parents. The hospital record must document such a discussion.

Bone and Soft Tissue

Irradiation of vertebral growth cartilages with doses of 2,000 rads or less delivered in a minimum of two weeks will result in minimal growth disturbances which can be demonstrated only radiographically.[2] These changes do not impair function or mar the external appearance of the child. When doses exceed 3,000 rads in three weeks, one begins to encounter the more significant vertebral deformities which may result in scoliosis. Incorporation of the entire vertebra within the treatment field will cause symmetrical damage and perhaps minimize the scoliosis. Vaeth[3] has suggested that the unilateral underdevelopment of the paravertebral musculature may contribute to the resultant scoliosis. He advocates early orthopedic consultation, which may minimize the subsequent deformity. Irradiation of the growth cartilage of long bones to similar doses will retard or arrest subsequent growth, and the adjacent skeletal muscles will be hypoplastic.

Central Nervous System

The tolerance of the brain and spinal cord in children is considered similar to that of adults.

Studies suggest that the damage to the central nervous system is related to obliteration of small blood vessels with resultant hypoxia and necrosis. Generally, doses to the brain of 5,000 rads in five or more weeks are well tolerated. The entire spinal cord can tolerate doses of 4,000 rads delivered in a minimum of four weeks. Smaller segments of the brain and spinal cord unquestionably will tolerate higher doses.[4]

Lungs

Without chemotherapy, the entire thorax including both lungs has been irradiated to doses of 2,500 rads in five to six weeks, usually without sequelae.[5] However, when actinomycin-D is being administered or if its administration is contemplated, the dose to both lungs should not exceed 1,500 rads. The acknowledged increase transmission of radiation through the air-containing lungs is not taken into account in arriving at these limits.

Kidneys

The renal tolerance in children is considered comparable to that of an adult. Doses above 2,500 rads in five weeks or less may result in radiation nephritis. Doses below 1,500 rads in 1½ weeks appear to be well tolerated.[6]

Gonads

The levels of radiation which can be safely administered to the gonads of prepubescent males and females have not been determined. Peck[7] found that 50% of menstruating young women will be sterilized with a dose in excess of 500 rads. As a practical matter it is seldom, if ever, necessary to irradiate the testes of a young male but the ovaries occasionally are unavoidably treated when one is dealing with large intraabdominal tumors. Vaeth[3] in a study of long-term survivors of Wilms' tumor treated with radiation found all six female patients had normal menarche and four had produced a total of 11 normal children.

Liver

Irradiation of the entire liver to doses in excess of 3,000 rads in three weeks may result in radiation hepatitis. Small portions of the liver often receive higher doses without clinically significant sequelae, though defects can be demonstrated by isotope scans.

Hematopoietic System

It is now well documented that sequential irradiation of the axial skeleton as is customarily administered in the treatment of malignant lymphomas can be well tolerated when doses in the range of 4,000 rads are administered.[8] This is especially true in children because of the presence of hematopoiesis in the long bones. Concomitant chemotherapy lessens the tolerance of the hematopoietic system. It is necessary to modify one's doses accordingly and to carefully monitor blood counts during treatment.

Skin and Mucous Membranes

The advent of the supervoltage era in radiotherapy and the near-universal use of skin-sparing sources of radiation have virtually abolished the restrictions which were formerly posed by skin reactions. Doses of 6,000 rads in six weeks are now well tolerated in any age group. Temporary epilation appears about three weeks after doses as low as 500 rads, even with supervoltage.

Gastrointestinal Tract

In our experience, young children tolerate abdominal irradiation better than adults. It is usually possible to irradiate a substantial portion of the small intestine to doses of 200 rads a day without inducing nausea and vomiting. Should these symptoms appear, they can subsequently be avoided by lowering the daily dose and providing antiemetics. Diarrhea is occasionally a problem when the colon receives doses above 3,000 rads. Adjustment of the daily dose, alteration in diet, and the administration of opiates successfully counteract the problem. Stenoses of the bowel have been noted many years after irradiation and may occasionally produce frank bowel obstruction which requires surgical intervention.

Radiation Carcinogenesis

There is ample evidence that even very low doses of radiation appear to be oncogenic.[9] By far the greater number of radiation-induced neoplasms following therapeutic doses of radiation have occurred in the group of patients receiving treatment for thymic enlargement.[10] This practice is now condemned. A small number of bone sarcomas have been reported following therapeutic doses. In retrospect most of the bones harbored apparent benign tumors or were affected by chronic osteomyelitis at the time of treatment. Phillips and Sheline[11] in reviewing the records of 2,300 adults who survived five years following irradiation report an incidence of bone sarcomas of 0.1%. We feel that the clinical decision regarding the utiliza-

tion of radiotherapy in a child with cancer should seldom, if ever, be tempered by the remote possibility of inducing a second neoplasm.

Central Nervous System Tumors

Medulloblastoma

Medulloblastomas generally arise from the vermis of the cerebellum and comprise about 25% of all intracranial tumors in children.[12] These tumors have the greatest tendency of any intracranial neoplasm to implant along surfaces bathed by the cerebrospinal fluid. It is therefore mandatory that the entire brain and spinal canal be comprehensively irradiated. Surgery should be limited to decompression and biopsy. Recommended doses vary between 4,500 rads and 5,000 rads administered to the posterior fossa over five to seven weeks with 3,500 rads being administered to the rest of the brain and spinal cord. Experience has proven that such fractionation is well within the tolerance of the central nervous system and adjacent structures.[4]

Five-year survival rates between 20-40% have been achieved in older reported series.[13, 14] There is recent evidence to suggest that with modern techniques survival may approach 50-60%.[12, 15] Recurrences long after five years have been described. If these are well localized, judicious reirradiation may result in long periods of apparent freedom from disease.

Gliomas

There is no need to administer postoperative irradiation to patients with apparent complete excision of low-grade gliomas, particularly the cystic variety which commonly occurs in the cerebellum of children. When surgical removal of a low-grade glioma is incomplete, a long symptom-free interval may occur without any further therapy. The role of radiation treatment in such patients has yet to be defined. Well-controlled randomized studies from institutions treating large numbers of brain tumors are urgently needed. Uihlein et al[16] could not demonstrate a statistically significant difference in survival rates in patients of all ages with grades I and II astrocytoma when comparing those receiving postoperative irradiation in excess of 3,500 rads with patients treated with surgery alone. Admittedly, patients in whom surgical removal was considered complete probably did not receive radiation. Gliomas arising in the brain stem and midbrain which were unresectable because of their strategic location were irradiated by Bouchard[13] who reports five-year survival rates of 33% and 40% respectively. It is our policy to irradiate such patients with relatively small fields to tumor doses between 4,500 rads and 5,000 rads over five to six weeks. Patients with grade III and IV astrocytomas (glioblastoma multiforme) are usually treated postoperatively with some temporary improvement, similar to the response seen in adults.

Ependymoma

There is now ample evidence that these tumors are capable of seeding throughout the entire subarachnoid space in a fashion similar to medulloblastoma.[17] Consequently it is considered advisable to irradiate not only the primary lesion but the entire central nervous system. Evidence of the radiosensitivity of ependymoma is provided by Phillips et al[18] who show that when doses greater than 4,500 rads are delivered an 87% overall five-year survival rate is obtained, in contrast to a 10% survival rate in those receiving doses less than 3,500 rads.

Neuroblastoma

Neuroblastomas and the histologically more mature but nonetheless malignant variant, ganglioneuroblastoma, are biologically aggressive tumors of childhood arising principally in those less than five years old. Priebe and Clatworthy[19] found that only 20 of 92 patients had apparent localized disease at the time of diagnosis. These tumors arise most often retroperitoneally either within the substance of the adrenal medulla or along the paravertebral soft tissues. The second most frequent primary site is the posterior mediastinum followed by the pelvis, cervical region and the extradural space within the spinal canal and brain. Metastases are found frequently in regional lymph nodes, liver, the skeleton, bone marrow, and within the soft tissues of the orbit.

Retrospective studies of large numbers of neuroblastoma patients are in agreement that a more favorable prognosis is associated with those less than one year old and those having intrathoracic primaries, irrespective of their age.[19,20] There is now ample evidence that patients can be cured who present with seemingly far advanced disease. Metastases to liver, skin, lung, bone marrow, and rarely bone have been eradicated, resulting in long-term survivors; hence, there is room for cautious optimism when confronted with patients having distant spread of their disease.

Neuroblastomas are extremely radiosensitive and as a result doses in the range of 2,000 rads delivered between two to four weeks with supervoltage equipment are both effective and well tolerated. Few late sequelae will occur among long-term survivors treated to such doses.

We believe that despite the apparent adequacy of surgical extirpation, patients with neuroblastoma should receive a course of radiotherapy directed to the tumor bed. In support of this contention is the data of Priebe and Clatworthy showing cures only in patients receiving postoperative irradiation.[19]

Wilms' Tumor

Wilms' tumor was originally managed by surgery alone, though occasional cures were achieved in inoperable patients exclusively with radiation—testimony to the radiosensitivity of this embryonic tumor.[20] Subsequently survival was enhanced by the addition of pre- and/or postoperative irradiation. Treatment prior to attempted excision often facilitated removal; whereas postoperative irradiation of the tumor bed advocated by Gross resulted in a widely acclaimed two-year survival rate of 47.3%.[21]

Prior to the actinomycin-D era, radiation was largely administered with orthovoltage equipment and the maximum dose was based on 80% skin tolerance in either three or four weeks, which occasionally produced a moist skin reaction. Following the introduction of actinomycin-D, clinicians noted recrudescent skin reactions when the drug was administered subsequent to the radiation and when given concurrently the reactions were enhanced.[22,23] With supervoltage equipment, doses of 3,000 rads in three to four weeks to large abdominal volumes are well tolerated.

It is not mandatory that the tumor bed be irradiated in every instance. When a clean removal of a small, well-encapsulated lesion has been accomplished, postoperative radiotherapy is unnecessary.[24] Metastatic pulmonary lesions have been permanently controlled with radiation, but indiscriminate prophylactic pulmonary irradiation is not justified.

Leukemia

Radiation therapy was one of the earlier modalities used in attempting to prolong the lives of leukemic patients. Radiation was directed to the spleen and ribs for myelogenous leukemia, to enlarged nodes in lymphocytic leukemia, and occasionally to the liver and whole body.[25]

Obviously, chemotherapy is now the primary mode of treatment, but judicious use of radiation for painful bony lesions, meningeal disease, orbital lesions, soft tissue involvement, and other local problems is often helpful.[26]

Recently Rhomes and associates,[27] noting complete remissions terminated by extension to the central nervous system, attempted whole brain irradiation (2,400 rads/2½ weeks) and concurrently administered methotrexate intrathecally. Sixty-six percent of patients receiving such treatment were in continuous remission for 23-30 months at the time of their report. Further follow-up data are eagerly awaited.

Hodgkin's Disease

Available data indicate that Hodgkin's disease in children has a histologic spectrum, pattern of spread, radiosensitivity, and a stage related prognosis similar to that in adults.[28] Radiotherapy is unquestionably the preferred and to date the most successful form of treatment for disease apparently confined to lymph nodes. Prior to formulating a treatment plan one must know the status of the retroperitoneal nodes, bone marrow, and liver as well as the histologic subgroup.

Rosenberg and Kaplan[29] have furnished evidence in support of an orderly progression of Hodgkin's disease throughout the lymphatic system. They advocate irradiating node groups adjacent to those harboring gross disease because of the probable existence of occult tumor in the neighboring nodes.

Kaplan[30] believes that the probability of permanently eradicating gross Hodgkin's disease with doses of 3,500-4,000 rads approaches 90-95%. End results obviously do not as yet approach such figures and failures often result from inadequate assessment of tumor extent prior to treatment, technical errors in treatment planning or dosage calculations as well as inconsistency in the daily application of the beam.

A patient exhibiting involvement of the extradural space, lung parenchyma, or bone is classified as having stage IV disease, but when such involvement is localized then it is both feasible and advisable to treat such patients with a curative intent. Some long-term survivors have resulted from this group.

Faced with unsatisfactory end results in stage III patients with systemic symptoms some centers[31] are now attempting to combine chemotherapy and comprehensive irradiation, especially in the mixed cellularity and lymphocytic depletion subgroups. Survival data is as yet inconclusive but the combined approach appears feasible.

Butler[28] reports five year, stage-related survival data in a group of 31 children ages 4-15 years: stage I 12/15 (80%), stage II 3/9 (33%), stage III 1/7 (14%).

Lymphocytic and Histiocytic Lymphoma

These neoplasms, also called lymphosarcoma and reticulum cell sarcoma, are far more aggressive and more often fatal than Hodgkin's disease. Their pattern of spread is totally unpredictable and infrequently contiguous in contrast to Hodgkin's disease. The most frequent site of origin is the gastrointestinal tract—terminal ileum, cecum, ascending colon, appendix—followed by the mediastinum, retroperitoneal nodes, peripheral nodes, and Waldeyer's ring. These tumors tend to be widespread at the time of diagnosis or to disseminate far and wide shortly thereafter. In many the disease evolves to acute leukemia prior to death. This is especially true of those presenting with mediastinal involvement.

Though these tumors are frequently extremely radiosensitive their inherent aggressiveness usually invalidates the use of a localized form of therapy such as irradiation. Jenkin and Sonley[32] found only 14 survivors among 121 patients seen at the Princess Margaret Hospital between 1930-1965. Of these 14, ten presented with gastrointestinal disease, two with retroperitoneal nodes, and two with peripheral lymph node involvement. Among those with gastrointestinal disease only 1/16 survived without abdominal irradiation despite apparent complete resection in all; whereas, 9/24 receiving postoperative irradiation were apparently cured.

There is no consensus among pediatric oncologists for any single treatment regimen for these two vicious tumors. Since in patients with apparent localized disease the next site of involvement is often extranodal—liver, bone, CNS, skin, bone marrow—one cannot rationally choose the site or sites to "prophylactically" irradiate. In patients with apparent localized disease we currently favor irradiation of the gross disease coupled with aggressive, long-term chemotherapy.

Bone and Soft Tissue Tumors

Ewing's Tumor

Ewing's tumor tends to arise in long bones but has been noted virtually everywhere in the skeleton. Pathologists have difficulty differentiating Ewing's tumor histologically from mestastatic neuroblastoma or reticulum cell sarcoma. Urinary VMA determinations occasionally help to rule out the former. These tumors metastasize early to lung and other bones. Because Ewing's tumor is quite radiosensitive, and in the absence of better results in surgical series, the most prevalent practice is to irradiate the primary lesion to doses between 5,000 and 6,000 rads in five to six weeks. Faced with the high probability of the presence of occult distant metastases at the time of diagnosis, it is now recommended that chemotherapy be administered for periods up to two years. Early reports indicate that cyclic drug therapy may improve the salvage rate.[33]

Osteosarcoma

Occasional patients with osteosarcoma have been cured with radiation alone, but the general experience has been that this tumor is extremely radioresistant. Amputation if possible is the preferred form of managing the primary lesion. Patients incurable by surgery because of proven distant metastases can occasionally receive substantial palliation when doses in the range of 5,000 rads in five weeks or greater are administered to a painful or ulcerated primary.

Histiocytosis-x

Though considered by most a benign process, there are, nevertheless, patients with histiocytosis-x who can receive substantial benefit from radiotherapy. Solitary lesions of bone are best treated by curettage, which is often therapeutic as well as diagnostic. Even when the abnormal tissue is not completely removed, it is prudent to withhold radiation until the bony lesions become symptomatic because often the residual disease will regress spontaneously. Pain relief and often permanent control are achieved with doses in the range of 1,000 rads in one week. Soft tissue lesions, if localized, frequently respond to doses of the same magnitude. Long-term sequelae from such low dose treatment are virtually nil. More generalized forms of the disease are best treated with systemic chemotherapy, reserving irradiation for specific local problems.

Soft Tissue Sarcomas

There are now data which seriously challenge the dictum that sarcomas, as a class, are radioresistant. Cassady et al have shown that embryonal rhabdomyosarcoma arising in the orbit can be cured with radiation alone and vision retained.[34] Lindberg reports that, though apparently ineffective in dealing with rhabdomyosarcomas arising in the nasopharynx, radiation therapy alone or in combination with surgery and chemotherapy controlled 7/7 patients with orbital lesions.[35]

Suit has irradiated 42 patients with soft tissue sarcomas following excisional biopsy and has noted a 10% local failure rate at two years.[36] In many of this group the traditional surgical approach would have been either amputation or resection of the bulk of the adjacent skeletal muscle. The local recurrence rate following such procedures at Memorial Hospital is 29% with 85% of the failures being evident at two years.[37] It would now seem legitimate, if the surgical alternative were amputation, to irradiate the tumor bed following excisional biopsy of moderate-size sarcomas arising on the extremities. In the event of radiation failure or a severe local necrosis, an operation similar to that traditionally applied could still be performed subsequently.

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Surgical Aspects of Childhood Cancer

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Not too many years ago parents who watched the physician examine their new baby knew as well as the doctor did that before their baby reached adult life he would have to survive potentially life-threatening infections. And he would have to do so mostly on his own without the help of immunizations and antibiotics. No one, physician or parent, considered neoplastic disease as a threat to survival of the child into adult life. Such is not the situation today. About 4,000 deaths due to various forms of cancer strike down children in the United States each year. Malignancy represents the second leading cause for death in childhood—next to accidental injury. About 40% of malignant tumors occurring in childhood may require surgical management.

The baby with a tumor cannot say, "my side hurts" or "my trousers fit tightly." He cannot call his mother's attention to the early symptoms and signs of neoplastic growth which are usually vague. An observant mother will often remark to the physician that her baby is irritable or, perhaps, has a prominence or enlargement of one side of the abdomen. Cough with hemoptysis and changes in bowel habits while helpful in suspecting malignant disease in the adult, are rarely so in the child. One must be more highly suspicious and thoroughly investigate persistent, vague deviations from the normal pattern of growth and activity. Maybe while changing diapers she thought she felt a lump in the side. Such vague observations registered by a parent are often the earliest detectable signs of a tumor hidden in the abdomen, chest or extremity of a child.

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Nothing is so valuable in detecting the presence of a tumor in childhood as the periodic physical examination. And nothing is more important to successful surgical management—to cure—than the careful examining hand of the physician who detects the cancer early while it is still contained at the original site.

The malignant neoplasms of childhood are mostly different from those encountered in adults. Seldom do they represent mucosal origin. More often they represent embroyonal nests of tissue in the brain, nervous system, kidney, liver, bone and muscle.

The outlook for the child with a malignant tumor is no longer dismal as it was in the distant past. Rather it is reasonable for those who encounter children with solid cancers to talk in terms of 70 year cures! Given prompt surgical removal coupled with radiotherapy and chemotherapy, parents can be often encouraged that their baby with a malignant tumor has a good chance for survival to adult life.

The following papers concisely present the surgeon's responsibilities in the problem of malignant neoplasia usually encountered in childhood:

1. Tumors of the Central Nervous System
2. Retinoblastoma
3. Neuroblastoma
4. Wilms' Tumor
5. Testicular and Bladder Tumors
6. Carcinoma of the Liver
7. Bone Tumors
8. Soft Tissue Tumors

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Brain Tumors of Childhood

L. E. White Jr., M.D.

Childhood malignancies involving the brain are rare—but real—the usual children's hospital admitting eight to 12 cases per year. In a mixed population of a large urban practice, tumors of childhood would constitute approximately 10% of brain tumors treated.

The tumors tend to occur (60% or more) in the posterior fossa and produce symptoms of instability. Histologically there is within the majority of these lesions an equal distribution of astrocytoma and medulloblastoma. The astrocytoma is completely resectable in many cases. This is particularly true when the tumor is cystic. Some of Harvey Cushing's later patients with cystic astrocytoma are still surviving. In contrast, while medulloblastoma is rarely cured, when it is treated with conservative operative decompression and irradiation, the patient may have a better life expectancy than the typical patient with carcinoma of the lung.

The next most prominent tumor is a benign congenital cystic hamartoma known also as the craniopharyngioma. This tumor occurs at the base of the brain in the parasellar area and displaces the hypothalamus and pituitary gland. With modern endocrinologic management, which includes preoperative functional adrenal cortex and thyroid hormone replacement and stress-oriented operative and postoperative endocrine management, this lesion can now be successfully removed in many cases followed by normal life expectancy. Even in cases of subtotal removal with endocrinologic assistance, useful life can be maintained by careful attention to the management of ventricular pressure.

The remaining tumors seen with significant frequency are the highly radiosensitive pinealoma and benign papillomas of the choroid plexus. Highly malignant glioblastomas are rate in childhood. Granulomatous lesions secondary to chronic inflammation and acute brain abscess are less frequent with the proper use of antibiotics.

In essence, although it is discouraging to encounter a child with a brain tumor, the physician should not despair and expert assistance should be sought at the earliest convenience. Early definitive diagnosis is readily possible and the combination of operative neurologic management with the assistance of the radiotherapist is most rewarding.

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Current Management of Retinoblastoma

Jorge A. Ferrer, M.D.

Retinoblastoma, if properly treated in its early stages, is one of the childhood malignancies with an excellent potential for cure rate (70%). Early diagnosis requires the services of a multidisciplinary team including specially oriented ophthalmologists, cancerologists and radiotherapists. Extreme care must be exercised in examinations to prevent overlooking malignancies or performing erroneous enucleations in cases of retinal dysplasia or metastatic endophthalmitis.

Tumor Management

The following basic treatment criteria has greatly increased the survival of these patients.

1. Intraocular stage

a. Beginning: Patients with small tumors, either single or multiple, are considered in this classification. In these cases it is extremely important to look for other small translucent tumors which may be present in the contralateral eye. It is also essential to examine siblings for such minimal lesions.

Here simple radiation therapy (without chemotherapy) will kill the active tumor and "sterilize" cells with malignant potential.

Cryo and light coagulation are indicated for lesions 4 to 6 disk diameters in size and for recurrences when irradiation is no longer possible.

b. Advanced: Patients with more than one third of the fundus occupied by tumor mass are classified as advanced. In such cases with monocular involvement, enucleation of the diseased eye and periodic follow-up of the other eye for five years is indicated.

In bilateral cases with extensive tumors, it is advisable to perform radiotherapy, supplemented by systemic chemotherapy. Enucleation of the less responsive eye follows.

2. Optic nerve penetration

Approximately 50% of these patients die due to intracranial invasion through the optic nerve. Enucleation, therefore, must include not less than 5 mm. of nerve stump. It is not necessary to cut more than 10 mm. since beyond this point the malignancy has probably already invaded the subarachnoid space. If a microscopic examination shows tumor in a proximal section, a transcranial approach for resecting more nerve would be useless. In this instance, radiation would be the best course.

3. Hematogenous dissemination

Since a positive bone marrow tap indicates that the disease process has become terminal, this test should always be given at the initial examination and follow-up visits. If positive, treatment should be simple and aimed at making the patient as comfortable as possible.

Chemotherapic Agents

Although the superiority of any one drug has not been proven, TEM (triethylenemelamine) is indicated for intracarotid injections. In other cases, cyclophosphamide is preferred by many because of its minimal toxicity (reversible bone marrow depression, patchy alopecia).

Genetic Advice

1. Survivors should not procreate as there exists no way to differentiate a sporadic from a genetic case (dominant pattern).

2. No member in the family should procreate if there are two or more affected members.

3. Bilateral cases, more likely to be familial, generate restrictions as above.

4. Parents of isolated affected children should be warned of the 1%-6% chance of having other children with similar problems.

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Diagnosis and Management of Neuroblastoma in Children

Michel Gilbert, M.D.

Neuroblastoma is one of the most common malignancies in childhood. These tumors account for about 8% of cancer deaths in children as compared with 5.5% in Wilms' tumor. Neuroblastoma arises either from the adrenal medulla or from the sympathetic nervous system. Most of these tumors are retroperitoneal; however, extra-abdominal origins are not uncommon. Twenty patients with neuroblastoma were treated at Variety Children's Hospital in the past ten years. Eleven had primary retroperitoneal tumors, eight had primaries in the chest (two of which had spinal cord involvement), and one patient had primary tumor in the neck. It does appear that lesions located in a position in which early diagnosis is likely (such as the neck) will give high cure rates as compared to lesions located in a position in which late diagnosis is likely, as in the abdomen. About 50% of abdominal neuroblastomas are seen in the first two years of life. Only a small percentage of neuroblastomas are diagnosed in patients after five years of age. The incidence of long-term survivors is 5-6 times higher in children under two years of age as contrasted to children over two years of age.

Clinical Manifestations

The presence of an abdominal mass is the most common clinical manifestation. This mass is firm in consistency, lobulated, and commonly crosses the midline. Hemorrhage into the tumor may cause a sudden enlargement. As compared to children with Wilms' tumor, these patients usually are sick and have pain, weight loss, weakness, irritability, and anemia. Quite often, the first symptoms are not secondary to the tumor mass but to the metastases. The tumor metastasizes widely both by lymphatics and the blood stream. The regional lymph nodes, bones, and orbits are commonly involved. The liver, skin, and subcutaneous tissue are also relatively frequent metastatic sites. Curiously, pulmonary metastases are infrequent. More than 50% of patients have metastases at the time of diagnosis. The presenting complaints may be bone pain or periorbital swelling, and ecchymosis (Fig. 1).

Radiological Findings

Plain abdominal and chest films may demonstrate a mass showing microcalcifications. Radiographic dye for intravenous pyelograms preferably should be injected into a vein in the lower extremity. In this way an inferior vena-cavagram



Fig. 1.—Patient with metastatic neuroblastoma (note periorbital ecchymosis).

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Fig. 2.—I.V.P. showing downward displacement of left kidney.

and pyelogram can be obtained from the same injection. Classically, the affected kidney is displaced downward and/or laterally (Fig. 2). Usually the kidney outline is maintained and hydronephrosis or calyceal deformity is rarely seen. Lateral films should be taken. Because of the frequency of osseous metastases, a skeletal survey is ordered in all patients suspected of having neuroblastoma. The skull along with the head and neck of the femur are usually the first bones to be involved with metastasis. Later practically all bones may be affected.

Laboratory Findings

Anemia may be present in 25% of patients. Bone marrow examination is of value only if positive but should be a routine examination in all patients suspected of this highly malignant tumor. Urinary excretion of vanylmandelic acid (VMA) and homovanillic acid (HVA) is increased with most patients with neuroblastoma and is useful in the postoperative care of the patient.

Treatment

Abdominal palpation is kept to a minimum. An adequate amount of blood is crossmatched, and a large bore catheter is inserted into an arm. A cut-down in the leg vein should not be done in patients with abdominal tumors, particularly if the tumor extends across the midline or if the inferior vena-cavagram shows occlusion of the vessel. As much of the primary tumor is removed as is consistent with safety and good surgical principles. If total excision is impossible due to local extension of the tumor, then a partial excision should be done. This has been our policy at Variety Children's Hospital, even in the presence of distant metastasis. Partial excision is not in accord with the usual precepts of cancer surgery. Many authors, however, have described a higher rate of survival in partial resections as compared to a simple biopsy. In planning the operative procedure, the surgeon should remember that spontaneous remissions can occur, and that x-rays and chemotherapeutic agents can be used to shrink the remaining tumor. One should not, therefore, jeopardize a child's chance to survive with a life-threatening operation. If the entire mass is unresectable, unroofing the tumor and aspiration of the necrotic material should be done. The bed of the tumor and any remaining tumor should be marked with radiopaque clips. In this way the course of the remaining tumor can be evaluated radiographically. In those instances where the tumor is completely excised with no evidence of metastases by x-ray, bone marrow aspiration and catecholamine studies, further treatment is unnecessary. However, faced with a nonresectable or partially resectable tumor and/or metastasis, a clear indication for x-ray therapy plus cytotoxic modalities exist. The latter include several agents of which the most efficacious are cyclophosphamide (Cytoxan) and vincristine.

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Tumors of the Genitourinary Tract
Wilms' Tumor

H. Warner Webb, M.D.

In 1899 a German surgeon, Max Wilms, reported a childhood tumor of the kidney which he correctly assumed was from pluripotential cells in the embryonic anlage of the kidney. Although accurately described on several occasions by earlier authors, this tumor and the name of Wilms have been inseparably associated since the publication of his treatise.

Wilms' tumor, known also (and perhaps more accurately) as embryoma of the kidney and also as embryonal adenomyosarcoma, is one of the most common malignant tumors of childhood. It is exceeded in incidence only by leukemia and tumors of the central nervous system, and in some series by neuroblastoma. In any small child with an abdominal mass, there is a 50% likelihood that the mass will have its origin from the urinary tract, and approximately one out of three of those will be a Wilms' tumor.

Histologically, as the noneponymic names imply, the tumor shows a picture of varied cellular differentiation from pluripotential embryonic cells. Thus one may encounter highly undifferentiated cells in addition to a combination of more differentiated elements such as smooth or striated muscle, abortive renal tubules and glomeruli, cartilage and fat. Usually there is no correlation between the histologic makeup and the prognosis in the individual case, although there has been recent evidence that certain tumor types predominate in the small infant and this correlates with the strikingly higher survival rate in that group.

One of the most outstanding findings in the usual case of Wilms' tumor is the virtual absence of symptoms. The tumor is usually discovered only when it is either palpable or visible by parent or physician. This is in direct contrast to renal tumors in the adult where hematuria or pain are the most likely causes for seeking medical attention. The paucity of symptoms is a clinical fact which also helps to differentiate this lesion from the equally common adrenal neuroblastoma, since children with the latter disease are usually sick with anemia, weight loss, or more specific symptoms.

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Diagnosis

Once an abdominal mass has been discovered it is then incumbent on the physician to determine its nature. Certain physical characteristics of Wilms' tumor help to confirm its presence. These include its origin deep in the flank, its unilaterality (usually), its moveability (usually) and its firm rubbery feel. All of these characteristics are subject to variable interpretation, however, and in all instances an intravenous pyelogram is required to confirm the diagnosis. The absence of function of the kidney in question usually signifies hydronephrosis rather than Wilms' tumor, since there is always function with the latter unless there is vascular occlusion by tumor. This latter happening can frequently be determined by the performance of an inferior vena-cavagram. The characteristic roentgen finding with Wilms' tumor is one of marked intrarenal distortion of the pelvicalyceal system, without disturbance of the renal axis itself. Neuroblastoma, on the other hand, usually shows very little calyceal distortion, but the kidney is considerably displaced from its usual position. The intravenous pyelogram allows not only an accurate diagnosis in most instances, but also a careful assessment of the opposite kidney both for function and for the presence of bilateral tumor involvement. A chest x-ray must always be obtained since the lungs are the most common site of distant metastasis.

Treatment

The primary treatment of Wilms' tumor is surgical removal. In the case of unilateral tumor with

a normal opposite kidney, this means a complete nephrectomy. In those rare instances where the tumor arises in a solitary kidney or a horseshoe kidney, then a partial nephrectomy is of course indicated. With bilateral tumors, a situation which occurs 3-5% of the time, a complete nephrectomy is done on the side of the larger tumor and a partial resection is done on the remaining side. Certain cardinal principles of tumor surgery should be kept in mind: wide adequate exposure, careful handling of the tumor, early ligation of venous drainage, careful removal of regional lymph nodes and en bloc removal of any contiguously involved tissues.

X-ray therapy has been a very helpful adjunct to surgery and is almost universally used postoperatively. In recent years there has been a trend to withhold x-ray therapy in infants under one year of age because of the low incidence of metastases and high survival rate in this group. X-ray therapy, however helpful, is not without occasionally serious side effects. With newly acquired expertise and equipment, and by keeping the total radiation limited, these distressing consequences can be minimized or eliminated. Radiation therapy is an especially valuable tool in the treatment of the all too frequent pulmonary metastases from Wilms' tumor. Many long-term cures have been obtained using radiation and chemotherapy and occasionally surgical removal of metastatic tumor in the lung. Chemotherapy will be discussed under a separate section of this issue, but it should be noted that the advent of dactinomycin and more recently vincristine have been major factors in the improved management of children with Wilms' tumor.

There are two other tumors of the genitourinary tract which occur with sufficient frequency to warrant inclusion in a review of this type. Embryonal rhabdomyosarcoma, commonly known as sarcoma botryoides, may arise from the bladder in either sex and from the prostate and vagina or uterus. Adequate treatment usually requires radical surgical exenteration with urinary diversion. X-ray and chemotherapy are of limited value, but in some instances may afford significant palliation.

Many types of testicular tumors have been described in childhood, but those of germinal origin are by far the more common. They include embryonal carcinomas, teratocarcinomas and several less commonly described varieties. A predominant number of these tumors are in the first year of life, some being present at birth. Any unexplained testicular swelling at any age should be considered suspicious and will usually lead to exploration of the testicle. Surgery involves complete removal of the testicle with high division of the cord structures. The place of retroperitoneal lymph node dissection is not universally agreed upon, but this procedure is less commonly done and probably less often indicated in the small infant, where the survival rate is much higher than in older children.

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Look For a Delayed-Action Brake on Medicare Fees

Though Medicare reimbursement is already frozen at the 75th percentile of 1970 fees, the new price freeze is likely to exert a long-range influence on fees. Unless Medicare's reimbursement formula is changed by pending legislation, the program will update its payment levels next year—with frozen 1971 fees limiting new payments.

Liver Tumors In Children

Barry F. Sachs, M.D.

Much of the pessimism that had previously surrounded this subject has been dispelled by increased sophistication in diagnostic radiology, by the application of new and improved concepts of surgical anatomy, operative technique, postoperative care, and new information provided by improved reporting of pediatric tumors. The improvement in the collection and analysis of tumor information has provided clarification of many of the pathologic entities that present as mass lesions of the liver and has documented experience with many tumors that can be accurately diagnosed and successfully treated.[1,2] The liver is the third most frequent anatomic site for intraabdominal neoplasms and is involved with three distinct groups of tumors. These tumor types differ in the age of onset, clinical pattern of symptoms and prognosis. An understanding of the existence of different types of liver tumors, many of which are curable, is important as we face the diagnostic and therapeutic challenge of a child with a liver tumor.

Clinical and Pathologic Patterns

Liver tumors can be simply classified into malignant, benign and vascular.

Malignant tumors[3,4] represent approximately one half of all liver neoplasms and are of two clinical and histologic types, each one affecting a characteristic age group with a specific pattern of symptoms, children under three years and children over three. Children under three years present with a history of progressive abdominal enlargement observed by the parent or with an asymptomatic mass palpated by the physician. Associated symptoms are not constant and are usually non-specific, including failure to gain weight, vomiting, diarrhea, reduced appetite, or irritability. Pathologically these are found to be hepatoblastomas (mixed or epithelial type).

Approximately one third of malignant tumors will occur in children over three years and the symptoms in these children are different. Pain is a frequent complaint, particularly localized to the epigastrium or right upper abdomen and is often described as a soreness and can be dull and chronic, or sharp, severe and sudden. Physical findings are generally limited to the presence of a firm irregular upper abdominal or epigastric mass. The general clinical appearance is variable and many of these children appear to be in good general health although some may appear chronically ill and others can present with an acute illness produced by bleeding of the tumor into the peritoneal cavity. Occasionally fever and pallor are present. Ascites and jaundice are unusual. The pathology of these tumors is also different: histologically they are hepatocellular carcinomas.

Benign tumors include a variety of histologic entities including mesenchymal hamartoma,[5] focal hyperplasia, hepatocellular adenoma, teratoma, fibroma, and lymphangioma. These present in children of all ages, usually as an asymptomatic mass detected during a physical examination for unrelated complaints.

Tumors of vascular origin[6] have certain clinical characteristics that assist in diagnosis. They occur in children under six months and often present with congestive heart failure or abdominal distention. Observation of cutaneous hemangiomas is a valuable diagnostic clue in any child with an abodminal mass or hepatomegaly. Histologically these are cavernous hemangiomas or hemangioendotheliomas. Occasionally they may present with sudden intraabdominal bleeding which produces acute symptoms of blood loss and peritonitis. Anemia and thrombocytopenia are frequent and the latter is an important diagnostic finding.

Diagnosis and Treatment

The radiographic evaluation of a child with an abdominal mass must procede in a logically planned manner. The potential yield from a par-

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ticular study should be considered before it is ordered. Abdominal survey films may reveal significant calcification or other abdominal masses. The chest x-ray is essential because of the high incidence of metastases to the lung by malignant liver tumors and the presence of cardiomegaly in vascular tumors. A skeletal survey is necessary because malignant liver tumors metastasize to bones. The first contrast study should be a combined inferior vena cavagram and intravenous pyelogram with lateral films. Angiography with selective celiac studies should be considered both for diagnostic evaluation and as an important preoperative study to define the surgical anatomy. Cholecystogram and intravenous cholangiogram are occasionally of value in localization of the tumor. Barium studies of the upper intestine and colon provide little direct diagnostic or therapeutic information and will usually show displacement. They are of limited value and frequently impede the work-up by delaying the more important angiographic studies.

The improved technology of liver scanning, particularly the use of technetium sulfide (Tc 99 m) has greatly facilitated the use and value of liver scans in infants and children.[8]

Liver function studies tend to be normal and hyperbilirubinemia is uncommon. Occasionally a slight elevation of alkaline phosphatase and SGOT is found but these changes are not specific. Interpretation of alkaline phosphatase values in children is difficult as the normal value is higher than in adults and is more variable. The presence of very high enzymes suggests a diagnosis other than liver tumor, or, in certain instances, a liver carcinoma superimposed on nodular cirrhosis. In far advanced liver malignancies liver function can be significantly deranged. The demonstration of alpha-one fetoglobulin is strong supporting evidence for the presence of hepatocellular carcinoma.

Needle biopsy is mentioned only to be condemned—not only can it produce serious hemorrhage and rupture of the tumor, but the tissue sample obtained can be misleading. The decision to obtain tissue for diagnosis demands exploratory laparotomy with preparation for possible curative resection.

Liver tumors can produce acute abdominal pain and can mimic the more common intraabdominal inflammatory conditions for which emergency surgery is frequently done at night. Faced with the presence of a liver tumor, the surgeon must be prepared to back out and avoid incomplete and dangerous attempts at removal under less than optimal conditions.

The treatment and cure of liver tumors is surgical.[9] The surgery must be carried out as an elective planned procedure and the surgeon must be prepared to enter the chest for control of the proximal vena cava, he must be knowledgeable of the more recently defined segmental anatomy of the liver, blood must be transfused through the jugular vein, venous pressure must be monitored and the metabolic derangements of hepatic resection (hypoglycemia, hypoalbuminemia, reduced fibrinogen and associated clotting disorders) must be recognized and effectively treated. The effect of postoperative chemotherapeutic agents on liver regeneration must be appreciated.[10] The role of radiotherapy and chemotherapy remains to be defined; at this time they serve only as adjuncts and successful treatment is based on proper surgical excision.

Results

The results of treatment have been steadily improving. Benign liver tumors and vascular tumors can be successfully treated and many series report no fatalities. Survival rates between 25% and 50% have been reported in children with hepatoblastomas in whom curative liver resections were possible.[11] In the presence of metastatic or nonresectable disease results are dismal, although reports of occasional success are noted.[12] Results in older children with hepatocellular carcinoma are poor. The promise of total hepatectomy and liver transplantation as an effective treatment for malignant liver tumors has not been achieved and the results are disappointing.[13]

Conclusions

All physicians involved in the primary care of children must be aware of the variety of clinical patterns presenting in children with liver tumors: older children with chronic abdominal pain, infants with cutaneous hemangiomas and heart failure, and children of all ages with asymptomatic abdominal masses, acute abdominal pain or intraabdominal bleeding requiring emergency surgery.

A high index of suspicion is fundamental to early diagnosis. Palpation of the abdomen is the best "cancer check-up" a child can have. Diagnostic evaluation should proceed along logical lines to quickly obtain the most information with the least patient discomfort and expense. Proper diagnosis can lead to appropriate planned curative surgery with low mortality and morbidity. Liver

tumors are curable if diagnosed early and treated surgically. Earlier diagnosis and more aggressively skilled treatment can make them even more so.

Experience with tumors of childhood must be pooled and shared in order to provide optimal treatment for the next child who will present with a neoplastic disease.

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Fewer Court Appearances for Doctors

That could become a growing trend now that the Ohio Supreme Court is putting its weight behind the use of video-taped testimony. The court says lawyers should take depositions on tape "in the doctor's office at his convenience" when necessary in order to avoid trial postponements caused by unavailability of busy M.D.s. At least two other states use video tape in court.

What Next For National Health Insurance?

The President's reordering of priorities may give only catastrophic insurance a chance of quick Congressional consideration—if Senator Russell Long (D., La.) tacks it to a House-passed Social Security bill as he's said he may.

Primary Bone Tumors in Children

Richard G. Dedo, M.D.

While statistically "cancer" in children is not common, perhaps 20% of these lesions are neoplasms involving bone. For the practitioner the rare bone lesion may present a seemingly overwhelming problem, but understanding, a definite approach aimed at establishing a diagnosis, and a knowledge of facilities available to him eases the burden considerably.

Some generalizations about these neoplasms are valid and will help in formulating an approach to the problem:

The job of the primary physician is to establish a diagnosis and the cooperation of the radiologist and pathologist is essential.

The rather limited ability of bone to react to a neoplasm can be recognized but is not specific for a given tumor.

Biopsy is essential for diagnosis.

The growing child contributes to the diagnosis by virtue of his age but complicates the diagnosis with the open epiphyseal plate.

The chance of cure is much smaller for a recurrence, so the first attack is the most important.

Benign lesions in the skeletal system of a growing child are many times more common than malignant ones.

Amputation is not an enormous disability.

Before considering the clinical problem, it is important to understand and to have a working classification of neoplasms that involve bone. Standard reference texts such as those of Jaffe and Lichtenstein are too detailed to provide a survey of tumors.

Dr. Enneking, in his "Principles of Musculoskeletal Pathology," has provided an excellent overview of these lesions: "Of the primary sarcomas there are two general groups. One group is composed of the tumors that arise from the mesenchymal, matrix forming cells of the bone itself. This would then include the osteosarcoma (bone), chondrosarcoma (cartilage), fibrosarcoma (connective tissue), and chordoma (notochord). This group of lesions tends to destroy the surrounding bone, is insensitive to irradiation or chemotherapy, and occurs most commonly about the end of the long bones. The second group arises from the cells housed within the bones and would include the myelomas (plasma cells), reticulum cell sarcoma (reticular cells), the Ewing's sarcoma, and vascular lesions (endothelial and related cells), and the giant cell sarcoma. These lesions are prone to creep through the marrow spaces insidiously, be sensitive to radiation and/or chemotherapy, and occur in areas of the skeleton housing hematopoietic marrow."

Tissue Diagnosis

The clinical approach to the problem of "bone tumors" is directed toward establishing a tissue diagnosis. The history, physician examination, and radiographic features of the lesion, correlated with appropriate laboratory examinations, provide the framework for the differential diagnosis; the radiologist and pathologist help in planning the procedure, and the biopsy will establish the diagnosis in most cases. The purpose of this discussion is to help the physician who first sees the child with a skeletal malignancy plan and understand a logical work-up.

The history of minor trauma, swelling, pain, and limited use of an arm, or limp if a leg is involved is certainly common in the first two decades. When physical examination reveals a mass, dilated venous pattern, swelling distal to the mass, pain on palpation and decreased joint motion compared with the normal side "neoplasm" must be considered. As with growth problems and fracture care, the open epiphyseal plate adds a variable not present in adults, and comparison films of the other extremity should be ordered at the same time for standardization of technique for comparison.

The radiograph can contribute to the final diagnosis by presenting a mute history of the lesion. Bone reacts to a neoplasm by osteoclastic resorbtion of bone or the osteoblastic deposition of reactive bone.

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Two important considerations to be given a radiograph are the location within the bone, both in relation to the cortex and to the epiphyseal plate, and the appearance of the entire bone compared with the other, normal side. Is there a generalized loss of density indicating a relatively long standing condition, or an alteration of bone texture? Finally, is there a correlation between the clinical and radiographic appearance of the soft tissue in regard to edema, atrophy, or calcification?

The significance of the laboratory examinations is appreciated when the proper correlation is made with the clinical and radiographic findings. The CBC, sometimes considered routine, may show the anemia of a widespread malignant disease, and the differential can pinpoint cell type. Serum calcium is elevated in disorders in which bone is being destroyed. Serum alkaline phosphatase levels reflect osteoblastic activity and, therefore, would be associated with the production of bone. "Normal" alkaline phosphatase levels in children and adolescents may be up to twice that of an adult, however, and the use of automated laboratory equipment has decreased the value of this determination for the problem under consideration. Serum protein and serum electrophoresis should be performed to exclude diseases which may be considered in the differential diagnosis.

During the work-up of a child with a bone lesion, a differential diagnosis will evolve and it is certainly appropriate to point out some special problems. Pyogenic osteomyelitis can mimic a primary skeletal malignancy in its often-seen metaphyseal location, duration of symptoms, radiographic appearance and physical findings. Other infections such as tuberculosis, the rare fungal lesions and parasites must be considered. Rickets, scurvy, and metabolic disorders, both congenital and acquired, present primarily in the first two decades. Sickle cell disease and trait may be brought to the physician's attention on routine x-ray examination. Finally, the active periosteum of a growing child may produce exuberant callus in response to minor trauma which has produced an incomplete (greenstick) fracture that has gone untreated. In an effort to immobilize the healing fragments an enormous callus can be mistaken for a neoplastic mass and its radiographic appearance is responsible for the occasional biopsy that causes much unnecessary concern.

Definitive Diagnosis

In order to establish a definitive diagnosis a tissue diagnosis is essential, and open biopsy is the method of choice. This biopsy must be carefully planned, and the surgeon is well advised to discuss the x-ray films and laboratory data not only with the radiologist, but the pathologist as well, in order that he may obtain the maximum amount of information with the least trauma. Treatment based on frozen section is mentioned only to be condemned. The pathologist should be in the operating room, however, in order to see the specimen in situ, offer advice about location of biopsy, and receive the specimen for processing.

While the use of a needle or aspiration biopsy is generally discouraged, it has a place for inaccessible areas or to confirm suspected metastases. This virtually excludes pediatric patients because lesions of the vertebral bodies are seen almost exclusively in the fourth decade of life and later.

When a tissue diagnosis is established the goal of the primary physician has been reached. There is no question that the skeletal malignancy is best treated by a complete team of specialists. This team should include orthopedists, diagnostic and therapeutic radiologists, pathologists, hematologists, oncologists and pediatricians with experience in these serious problems. The paramedical help often essential to successful management includes prosthetists, physicial and occupational therapists and social services who can provide whole patient care.

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Skin and Soft Tissue Cancer

Albert H. Wilkinson Jr., M.D.

The subject of cancer in childhood in this issue of the Journal of the Florida Medical Association is not complete without including the subject of malignancy as it develops in the skin and soft tissues of the extremities, trunk, head, face and neck of infants and children.

Although in these parts, benign tumors occur with much greater frequency than malignant ones, the alert physician must be aware that malignant lesions do occur. An anxious mother will often seek the early advise of her child's physician because of a persistent lump under the skin, or a growth on the skin. Its readily discernible appearance signals early help. Armed with the knowledge that although rare malignancy of these parts does occur in childhood, the physician can be reassuring to the parents, but firm in recommending prompt surgical removal and/or biopsy.

Appearing in the skin and soft tissues of children may be malignancies which arise from the epidermis, sweat and sebaceous glands, nerve tissue, pigmented structures, and primitive mesenchyme. Specifically these may include basal cell and epidermoid carcinoma, adenocarcinoma, neurofibrosarcoma, malignant schwannoma, malignant melanoma, fibrosarcoma, hemangiopericytoma and liposarcoma. In this group of malignancies those of mesodermal origin are considerably more common than those of epidermal origin. Although these malignant lesions may be present at birth, it is a far more frequent circumstance for them to appear in adolescence as a new lesion, or as malignant change occurring in a previously existing benign lesion.

Because the cells of childhood often demonstrate mitotic figures, expert pathological consultation is sought to confirm the presence of malignancy. The pathologist will often seek the opinion of several of his colleagues before he renders a final decision.

Surgical management including wide local excision with or without lymph node removal forms the mainstay of treatment for these malignancies. In a few instances radiotherapy is clearly indicated, but in general the use of combinations of chemotherapy and irradiation has not been clearly defined.

Nevi with their malignant potential represent the most frequent skin lesions for which the physician is most often consulted in childhood. Because of this fact, they deserve special mention. Although nevi of various cell types occur frequently in childhood, malignant melanoma is quite rare. When the child becomes an adolescent and later an adult, however, the nevus then takes on a greater potential for malignant change. While many nevi in childhood do not need to be excised, wide experience has indicated that nevi in certain areas of the body have a greater chance for malignant change and hence should be removed in childhood. These areas are the soles of the feet and palms of the hand, the nail beds, genital areas, mucous membranes of the mouth and lips, the eyelids, and on skin surfaces subject to repeated trauma.

Because tumors of the skin and somatic soft tissues may be detected early by the parents, perhaps in no other area of childhood cancer has the surgeon a better opportunity for early diagnosis and hence potential cure.

Dr. Wilkinson is Chief of Surgery and Tumor Program Director, Hope Haven Childrens Hospital, Jacksonville and Clinical Assistant Professor of Surgery (Pediatric), University of Florida College of Medicine, Gainesville.

▶ Dr. Wilkinson, 241 Marshall Taylor Doctors Building, Jacksonville 32207.



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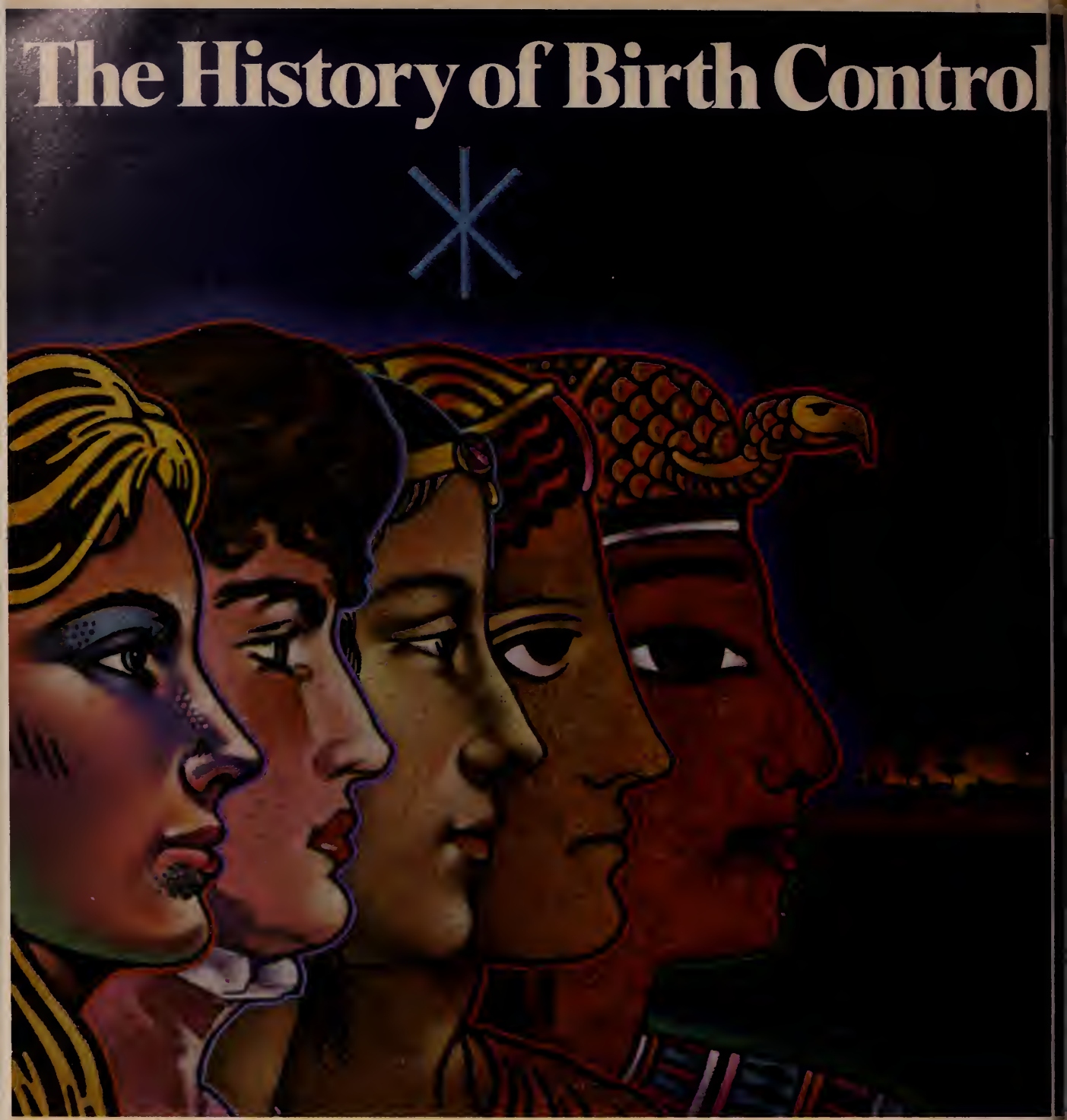
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bortion and infanticide have, throughout istory, been the final and desperate resort of omen who were unable to control their fertility, ut for almost 4,000 years they have sought ays to prevent conception.

In ancient Egypt they used pessaries of ocodile dung or tried to clog the motile sperm ith honey and a gumlike substance. The omen of Islam used tampons of pomegranate ulp and rock salt. In Japan they burned little balls "burning grass" on the *mons veneris* or, more actically, tried to cover the mouth of the uterus with disks of oiled bamboo tissue paper. In the 18th Century in France upper-class women rediscovered the vaginal sponge, a device mentioned in sources as old as the Talmud.

It may seem now that such advances as oral contraception and the IUD have freed women from this often fruitless search and consequent suffering, but there are millions of women in the United States and elsewhere who have less knowledge of, and less recourse to, contracepti than Egyptian women of the Twelfth Dynasty. Nothing is more urgent to all of us than to bring them help. We cannot long support the ecologic pressures of an additional 70 million Earth inhabitants each year.

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Special note—Oral contraceptives have been marketed in the United States since 1960. Reported pregnancy rates vary from product to product. The effectiveness of the sequential products appears to be somewhat lower than that of the combination products. Both types provide almost completely effective contraception.

An increased risk of thromboembolic disease associated with the use of hormonal contraceptives has now been shown in studies conducted in both Great Britain and the United States. Other risks, such as those of elevated blood pressure, liver disease and reduced tolerance to carbohydrates, have not been quantitated with precision.

Long-term administration of both natural and synthetic estrogens in subprimate animal species in multiples of the human dose increases the frequency of some animal carcinomas. These data cannot be transposed directly to man. The possible carcinogenicity due to the estrogens can be neither affirmed nor refuted at this time. Close clinical surveillance of all women taking oral contraceptives must be continued.

Indication—Ovulen and Demulen are indicated for oral contraception.

Contraindications—Patients with thrombophlebitis, thromboembolic disorders, cerebral apoplexy or a past history of these conditions, markedly impaired liver function, known or suspected carcinoma of the breast, known or suspected estrogen-dependent neoplasia and undiagnosed abnormal genital bleeding.

Warnings—The physician should be alert to the earliest manifestations of thrombotic disorders (thrombophlebitis, cerebrovascular disorders, pulmonary embolism and retinal thrombosis). Should any of these occur or be suspected the drug should be discontinued immediately.

Retrospective studies of morbidity and mortality conducted in Great Britain and studies of morbidity in the United States have shown a statistically significant association between thrombophlebitis, pulmonary embolism, and cerebral thrombosis and embolism and the use of oral contraceptives. There have been three principal studies in Britain[1-3] leading to this conclusion, and one[4] in this country. The estimate of the relative risk of thromboembolism in the study of Vessey and Doll[3] was about sevenfold, while Sartwell and associates[4] in the United States found a relative risk of 4.4, meaning that the users are several times as likely to undergo thromboembolic disease without evident cause as nonusers. The American study was not designed to evaluate a difference between products. However, the study suggested that there might be an increased risk of thromboembolic disease in users of sequential products. This risk cannot be quantitated, and further studies to confirm this finding are desirable.

Discontinue medication pending examination if there is sudden partial or complete loss of vision, or if there is a sudden onset of proptosis, diplopia or migraine. If examination reveals papilledema or retinal vascular lesions medication should be withdrawn.

Since the safety of Ovulen and Demulen in pregnancy has not been demonstrated, it is recommended that for any patient who has missed two consecutive periods pregnancy should be ruled out before continuing the contraceptive regimen. If the patient has not adhered to the prescribed schedule the possibility of pregnancy should be considered at the time of the first missed period.

A small fraction of the hormonal agents in oral contraceptives has been identified in the milk of mothers receiving these drugs. The long-range effect to the nursing infant cannot be determined at this time.

Precautions—The pretreatment and periodic physical examinations should include special reference to the breasts and pelvic organs, including a Papanicolaou smear since estrogens have been known to produce tumors, some of them malignant, in five species of subprimate animals. Endocrine and possibly liver function tests may be affected by treatment with Ovulen or Demulen. Therefore, if such tests are abnormal in a patient taking Ovulen or Demulen, it is recommended that they be repeated after the drug has been withdrawn for two months. Under the influence of progestogen-estrogen preparations preexisting uterine fibromyomas may increase in size. Because these agents may cause some degree of fluid retention, conditions which might be influenced by this factor, such as epilepsy, migraine, asthma, cardiac or renal dysfunction, require careful observation. In breakthrough bleeding, and in all cases of irregular bleeding per vaginam, nonfunctional causes should be borne in mind. In undiagnosed bleeding per vaginam adequate diagnostic measures are indicated. Patients with a history of psychic depression should be carefully observed and the drug discontinued if the depression recurs to a serious degree. Any possible influence of prolonged Ovulen or Demulen therapy on pituitary, ovarian, adrenal, hepatic or uterine function awaits further study. A decrease in glucose tolerance has been observed in a significant percentage of patients on oral contraceptives. The mechanism of this decrease is obscure. For this reason, diabetic patients should be carefully observed while receiving Ovulen or Demulen therapy. The age of the patient constitutes no absolute limiting factor, although treatment with Ovulen or Demulen may mask the onset of the climacteric. The pathologist should be advised of Ovulen or Demulen therapy when relevant specimens are submitted. Susceptible women may experience an increase in blood pressure following administration of contraceptive steroids.

Adverse reactions observed in patients receiving oral contraceptives—A statistically significant association has been demonstrated between use of oral contraceptives and the following serious adverse reactions: thrombophlebitis, pulmonary embolism and cerebral thrombosis.

Although available evidence is suggestive of an association, such a relationship has been neither confirmed nor refuted for the following serious adverse reactions: neuro-ocular lesions, e.g., retinal thrombosis and optic neuritis.

The following adverse reactions are known to occur in patients receiving oral contraceptives: nausea, vomiting, gastrointestinal symptoms (such as abdominal cramps and bloating), breakthrough bleeding, spotting, change in menstrual flow, amenorrhea during and after treatment, edema, chloasma or melasma, breast changes (tenderness, enlargement and secretion), change in weight (increase or decrease), changes in cervical erosion and cervical secretions, suppression of lactation when given immediately post partum, cholestatic jaundice, migraine, rash (allergic), rise in blood pressure in susceptible individuals and mental depression.

Although the following adverse reactions have been reported in users of oral contraceptives, an association has been neither confirmed nor refuted: anovulation post treatment, premenstrual-like syndrome, changes in libido, changes in appetite, cystitis-like syndrome, headache, nervousness, dizziness, fatigue, backache, hirsutism, loss of scalp hair, erythema multiforme, erythema nodosum, hemorrhagic eruption and itching.

The following laboratory results may be altered by the use of oral contraceptives: hepatic function: increased sulfobromophthalein retention and other tests; coagulation tests: increase in prothrombin, Factors VII, VIII, IX and X; thyroid function: increase in PBI and butanol extractable protein bound iodine, and decrease in T^3 uptake values, metyrapone test and pregnanediol determination.

References: 1. Royal College of General Practioners: Oral Contraception and Thrombo-Embolic Disease, J. Coll. Gen. Pract. *13*:267-279 (May) 1967. **2.** Inman, W. H. W., and Vessey, M. P.: Investigation of Deaths from Pulmonary, Coronary, and Cerebral Thrombosis and Embolism in Women of Child-Bearing Age, Brit. Med. J. 2:193-199 (April 27) 1968. **3.** Vessey, M. P., and Doll, R.: Investigation of Relation Between Use of Oral Contraceptives and Thromboembolic Disease. A Further Report, Brit. Med. J. 2:651-657 (June 14) 1969. **4.** Sartwell, P. E.; Masi, A. T., Arthes, F. G.; Greene, G. R., and Smith, H. E.: Thromboembolism and Oral Contraceptives: An Epidemiologic Case-Control Study, Amer. J. Epidem. 90:365-380 (Nov.) 1969.

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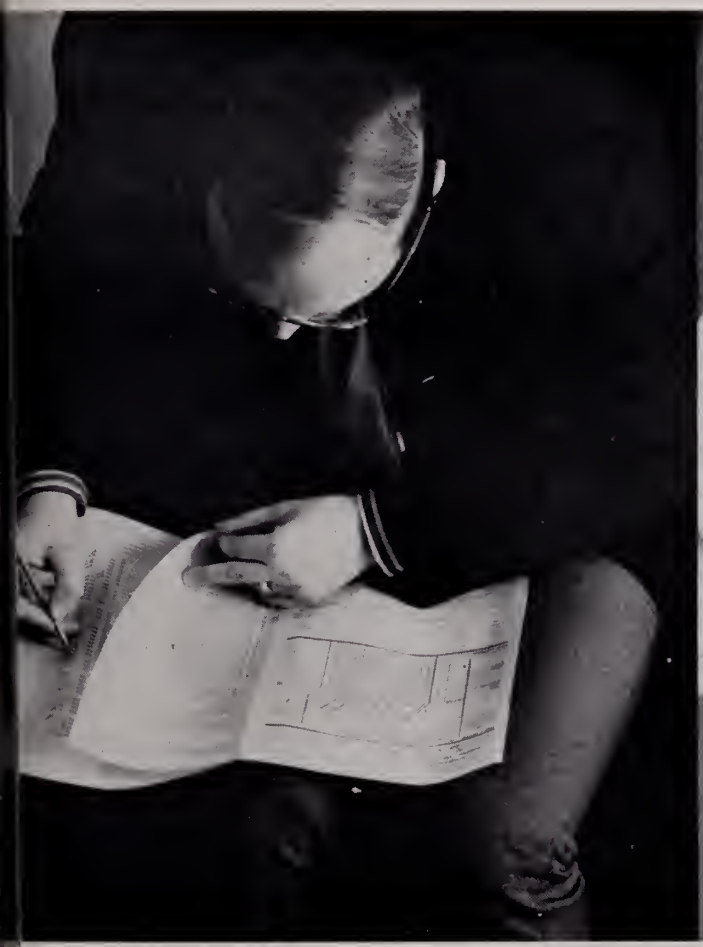
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Editorial

We, the AMA

Recently, the journal of a large state medical association reprinted an editorial from another state journal quoting a county society bulletin. In this thesis, a practicing physician wrote that it is time to stop blaming all our problems on the AMA and begin doing something on the local level. One organization, he says, well suited as a continuing professional assembly of physicians and a link between the profession and the public, is the county medical society. And since levels of representation follow precisely the levels of government; local, state and national, and moving from the bottom upward with an input of 1,940 county and other affiliated societies including more than 75% of the practicing physicians, the AMA's structure should be one of strength and authority. Critical of the poor attendance at county society meetings, limited participation in activities and the difficulty of designing programs appealing to a majority of the doctors too busy to attend or get involved, the writer reasons that county, state and national medical organizations are the only existing organizations which have the know-how and the prestige to represent all physicians and the only way that anyone can be assured that all physicians are represented is for all physicians to participate actively.

Recent years have seen a national antagonism toward organized medicine with physicians contributing to this through neglect and outright criticism while others have silently walked away. State societies are no longer making AMA membership mandatory while some individuals who belong are not renewing their membership. Does this indicate disdain of organized medicine or are these physicians really ducking responsibility? One often hears the remark, "What's the AMA done for me?" Obviously to many it is a strong voice on important national affairs, an internal ethical structure for organized medicine and a carrier of the physician's views to the public. Within the representative framework of the AMA federation, constructive dispute motivates leadership and makes for better medicine and by its democratic nature, majority opinion and dissent are heard and constructive change can be accomplished. An increase in governmental programs means increasing organization of the medical profession and under the sweeping form of national health insurance on the horizon, organized physician groups acting as government agents will become more powerful. With current patterns of AMA representation on national policy groups and manpower development, the AMA is becoming more of a negotiating body with government and governmental agencies. This should strengthen its power, for no national health insurance scheme can work effectively without organization of the medical profession. The AMA's problems, diminishing interest and lack of participation by doctors, need careful analysis and prompt solution.

Following recent recommendations of AMA leaders, why not locally go on record as recognizing the need to relieve poverty, emphasize preventive medicine and health education, endorse capitation prepayment of medical care for the poor, but preserving fee-for-service without producing two levels of medical care and establishing tighter controls over the cost and quality of medical services as well? Why not push a plan to rescue our state Medicaid program, including a provision to underwrite part of the risk as a guarantee of our concern about cost and utilization control? Why not sit down with labor and industry to seek all avenues to provide better quality, adequacy and timeliness of health care for their members? Why not make continued membership in professional societies contingent on proof of continuing education affirming to the public and the government that we are keeping professional standards high?

Public policy has determined that everyone has the right of access to health care, but as the doctor also is a member of the free society, giving away the right to his services places him in a state of servitude. Somehow, a firm stand must be taken on maintaining physicians' rights and prerogatives. There, of necessity, must be a give-and-take between doctors' exercise of those rights and the legitimate demands of the public we serve and the government that foots the bill.

Every day, doctors' patients trust them to be right in decisions that literally mean life or death. Are we going to accept that patient's trust, do the best we can for him and then sit back and let some politician plan his future health care, and at the same time, plan our destiny?

The AMA, that's us, needs all the help we can give!

C.M.C.

Physician's Assistants for Ophthalmologists

David M. Worthen, M.D.

Proposed legislation in Washington regarding national health insurance will increase the burden on practicing physicians if implemented. Because of the anticipated increase in the number of patients to be cared for, the medical schools have increased their enrollment and new medical schools have opened. Another approach to the problem is to increase the quantity and, hopefully, the quality of medical care by training assistants for the physicians. An assistant is envisioned as being a new member of the health team different from nurses, technicians, aides, and other ancillary help.

The ophthalmologist with his multiple measurement tasks seems an ideal candidate for such an assistant. At the urging of the Florida Society of Ophthalmology, the Department of Ophthalmology at the University of Florida College of Medicine is embarking upon such a program. In hopes of learning their needs, we recently conducted a survey among 212 Florida ophthalmologists asking their help in formulating the training program. Of them, 137 (65%) responded with the following results.

Question 1. From your standpoint, is there a need for ophthalmic assistants in the state of Florida? Reply: Yes—87%, No—6%, Undecided—7%

Comment: Of those indicating "No," most of them added the comment that more physicians would be a better solution than the training of assistants.

Question 2. If such an assistant were available tomorrow and personalities compatible, would you hire him? Reply: Yes—63%, No—25%, Undecided—12%

Comment: More than half of those who said "No" indicated that was because they already had such an assistant in the form of a nurse or office assistant. These could likely be grouped in with the "Yes" replies.

Question 3. What salary range would you feel reasonable? Reply: $5-7,000—29%, $7-9,000—54%, $9-11,000—16%, and more—1%

Comment: A number of those responding indicated that the current need exceeds the supply and therefore the actual salaries commanded at this time are considerably higher than indicated.

Question 4. The three areas most useful to you in your practice:

Reply:
a. Visual fields—69%
b. Visual acuity and refraction—64%
c. History taking and records completion—46%
d. Contact lens fitting and instruction—35%
e. Tonometry and tonography—35%
f. Patient instruction—27%
g. Strabismus measurement—14%
h. Photography—11%

Comment: The tasks indicated to be the most useful to the physician are those that are the most repetitive yet extremely important to the practice of ophthalmology. It is anticipated that if ophthalomoligsts were free of these time-consuming tasks they could more readily use their time for medical problems.

Dr. Worthen is Assistant Professor, Department of Ophthalmology, University of Florida College of Medicine, Gainesville.

Conclusion

It is the goal of the Department of Ophthalmology to develop curriculum, classroom and bedside teaching aides, and to cooperate nationally with the certification of physicians assistants in ophthalmology. Our facilities for training are too limited to meet the needs of the ophthalmologists in the State of Florida, however, we will be able to assist those setting up such training programs by sharing the knowledge we gain. Such information will also be useful to those training assistants for positions in family medicine and other specialty areas.

Dr. Worthen, Department of Ophthalmology, University of Florida College of Medicine. Gainesville 32601.

Physician's Assistants Legislation

Published on Page 29 of the September issue of *The Journal* was a legislative bill purporting to be the enactment of the 1971 Legislature providing for certification and training of Physician's Assistants in Florida. Through error, this was not the version passed by the Legislature which became the law of the state on July 1, 1971. The correct statute will be reproduced in the official 1972 FMA Directory to be published in January and will be distributed to all members of the FMA.

After a casual reading of this version, comments heard last week in a hospital coffee shop make one wonder if the law will be needed, for none of the speakers gave any intent of hiring a physician's assistant, remarking on the increased revenue needed to make it worthwhile to pay an assistant the going salary. There was concern about what these assistants will do to justify their stipend, and the ability of the assistant and his doctor to obtain malpractice insurance?

On rereading the bill, one wonders if the Legislature, "concerned with the growing shortage and geographic maldistribution of health care services in Florida," is aware of the increasing number of MD's taking Florida state boards and can foresee the effects of our new licensure by endorsement legislation plus medical school programs providing service in areas that are devoid of doctors.

The bill states that assistants working under supervision shall require the easy availability or physical presence of the licensed physician (to whom they are certified) for consultation and direction of actions and that the assistant may perform services in the specialty area for which he is trained in the office of the physician for whom he works; or in a hospital where his physician is a member of the staff; or on house calls on the direct order of his physician-employer, or when such services are rendered within the scope of an approved program.

Certificates of approval for programs of educating and training of physician's assistants will be issued by the Board of Medical Examiners. The educational program must extend for 24 months and have provisions for continuing education. A physician must have an approved application from the Board to obtain the services of a physician's assistant who will be certified by the Board of Medical Examiners. No more than two physician's assistants will be certified for any physician practicing alone. The profession and the public are protected by a paragraph stating that anyone guilty of practicing as an assistant without being certified will be subject to prosecution.

The Board will administer the physician's assistant's program and will report to the Legislature no later than 1973 and yearly thereafter as to the number of programs, the number of physician's assistants and the evaluation of the program as well as its acceptance by the community. There is a $500 fee for initiating a physician's assistant program and a $50 fee for any physician wishing to use a physician's assistant.

Copies of the correct Physician's Assistant Act are available upon request to The Journal, P. O. Box 2411, Jacksonville, Fla. 32203.

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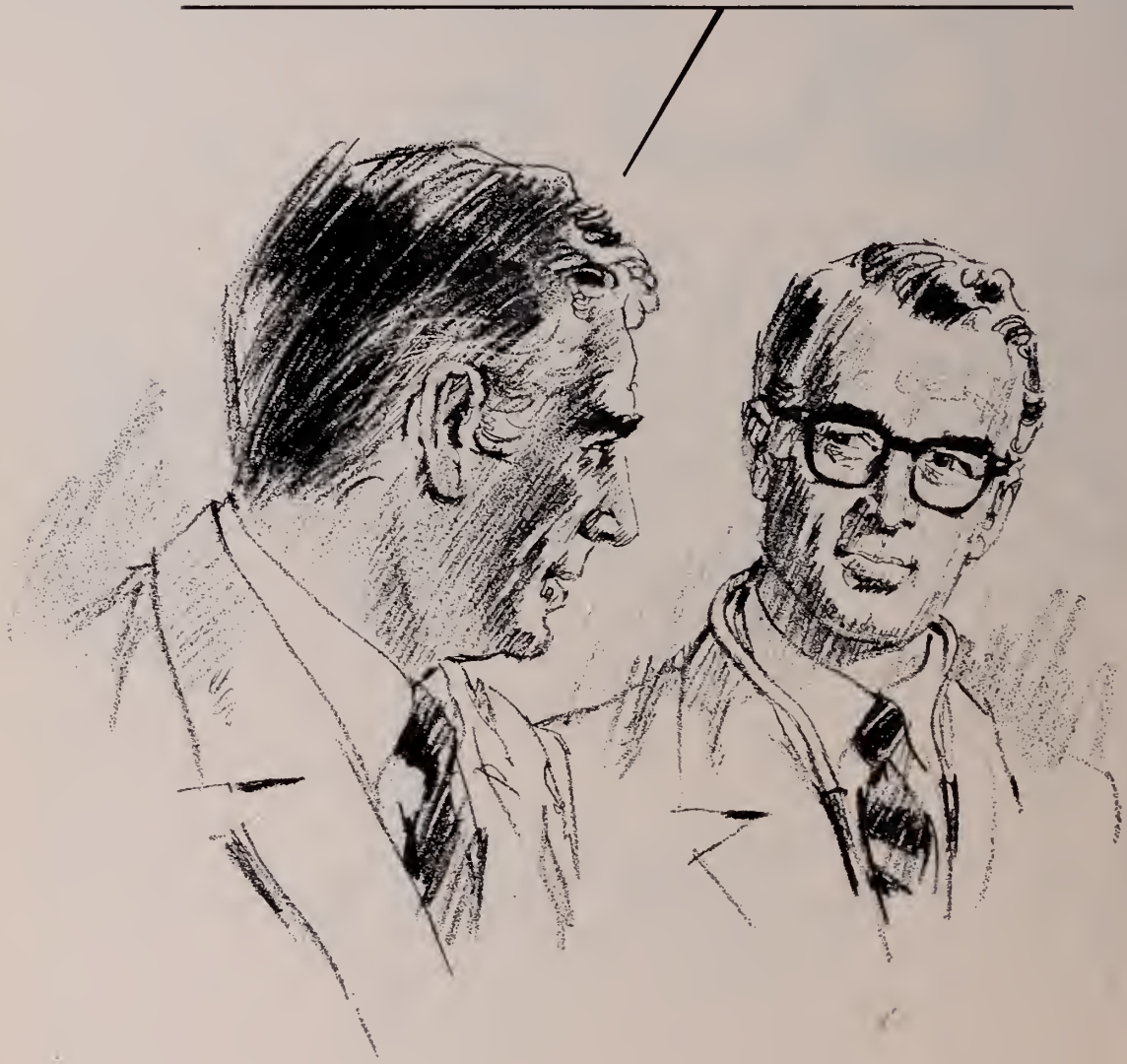
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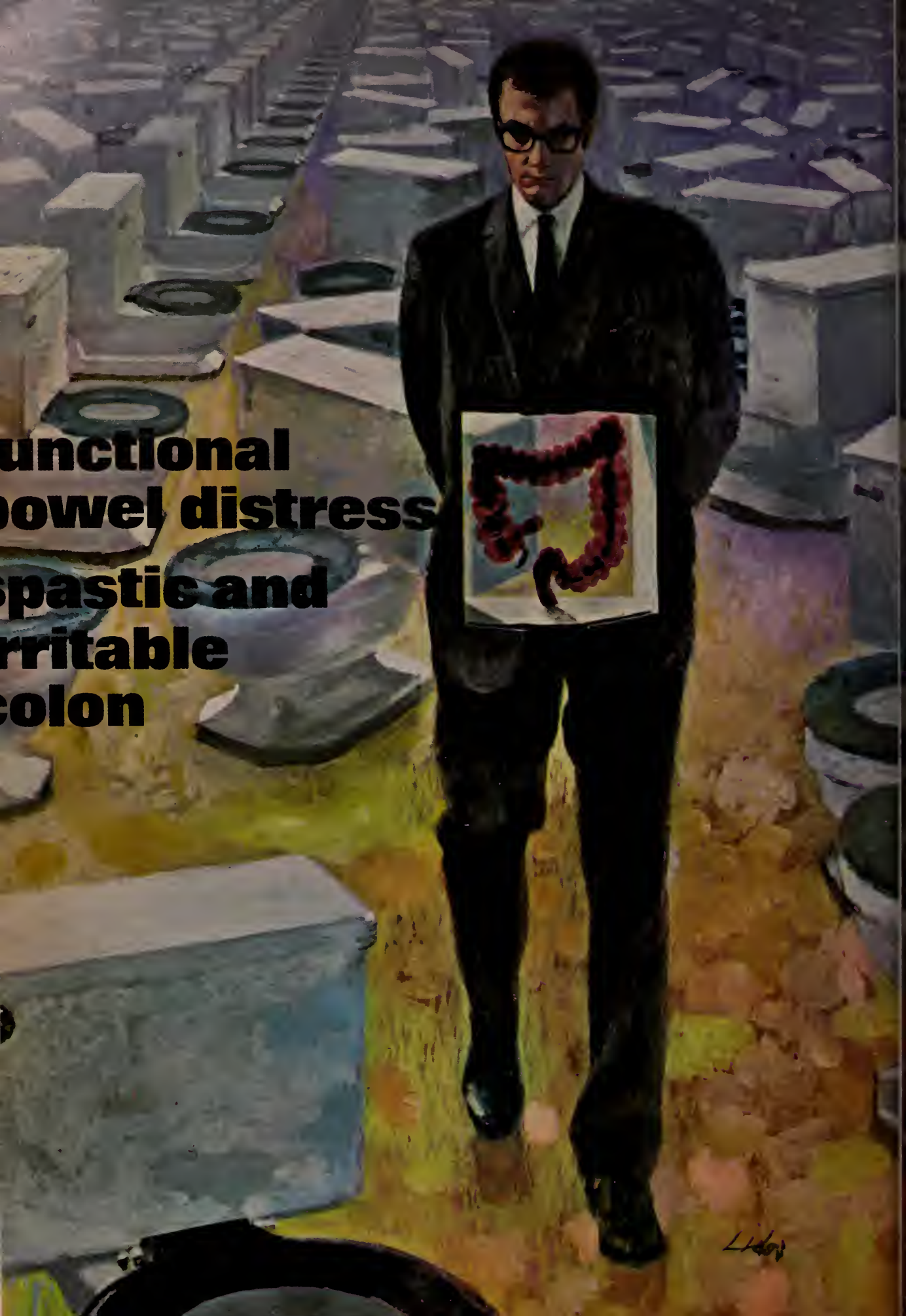


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■ **INDICATIONS** Robinul Forte (glycopyrrolate, 2 mg.) and Robinul-PH Forte are double-strength dosage forms of glycopyrrolate. They are primarily indicated for patients who are less responsive to anticholinergic therapy and for control of the more prominent symptomatology associated with acute episodes of gastrointestinal disorders. Emphasis should be on total management, with due consideration of the various therapeutic modalities available, including diet, antacids, anticholinergic agents, sedatives, and attention to emotional problems. Accordingly, glycopyrrolate is recommended in the management of gastrointestinal disorders amenable to anticholinergic therapy, such as: (1) duodenal ulcer, duodenitis, pylorospasm; (2) gastric ulcer, gastritis, esophageal hiatal hernia, hyperchlorhydria, pyrosis, aerophagia, gastroenteritis; (3) esophagitis; (4) cholecystitis, chronic pancreatitis; (5) spastic and irritable colon, ulcerative colitis, functional bowel distress, diverticulitis, acute enteritis, diarrhea; and (6) splenic flexure syndrome, neurogenic gastrointestinal disturbances. When these conditions are associated with psychic overlay, the formulation with phenobarbital may be indicated. ■ **CONTRAINDICATIONS** Glaucoma, urinary bladder neck obstruction, pyloric obstruction, stenosis with significant gastric retention, prostatic hypertrophy, duodenal obstruction, cardiospasm (megaesophagus), and achalasia of the esophagus, and in the case of Robinul-PH Forte (glycopyrrolate with phenobarbital), sensitivity to phenobarbital. ■ **PRECAUTIONS** Administer with caution in the presence of incipient glaucoma. ■ **SIDE EFFECTS** The most frequent side effect noted during clinical trials was dry mouth. Thirty-three (3.3%) of 1,009 patients receiving 1 to 32 mg. of glycopyrrolate a day complained of dry mouth of moderate to severe degree, but only 11 discontinued treatment because of this. Blurred vision, constipation, and urinary hesitancy have been reported infrequently. Other side effects associated with the use of anticholinergic drugs include: tachycardia, palpitation, dilatation of the pupil, increased ocular tension, weakness, nausea, vomiting, headache, dizziness, drowsiness, and rash. ■ **DOSAGE** The average and maximum recommended dose of Robinul Forte (glycopyrrolate, 2 mg.) or Robinul-PH Forte is one tablet three times daily (in the morning, early afternoon, and at bedtime). To obtain optimum results, dosage should be adjusted to the individual patient's response. After the more severe symptoms associated with acute conditions have subsided, the dose may be reduced to the minimum required to maintain symptomatic relief. ■ **SUPPLY** Robinul Forte (glycopyrrolate, 2 mg.) is available as scored, compressed pink tablets engraved AHR/2 in bottles of 100 and 500. ■ Robinul-PH Forte (glycopyrrolate, 2 mg., with phenobarbital, 16.2 mg.) is available as scored, compressed blue tablets engraved AHR/2 in bottles of 100 and 500.

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In tubes of 1 oz. and ½ oz. for topical use only.

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Neosporin®-G Cream
(polymyxin B-neomycin-gramicidin)

Each gram contains: Aerosporin® brand polymyxin B sulfate, 10,000 units; neomycin sulfate, 5 mg. (equivalent to 3.5 mg. neomycin base); gramicidin, 0.25 mg., in a smooth, white, water-washable vanishing cream base with a pH of approximately 5.0. Inactive ingredients: liquid petrolatum, white petrolatum, propylene glycol, polyoxyethylene polyoxypropylene compound, emulsifying wax, purified water, and 0.25% methylparaben as preservative.
In tubes of 15 g.

NEOSPORIN for topical infections due to susceptible organisms, as in impetigo, surgical after-care, and pyogenic dermatoses.

Precaution: As with other antibiotic preparations, prolonged use may result in overgrowth of nonsusceptible organisms and/or fungi. Appropriate measures should be taken if this occurs. Articles in the current medical literature indicate an increase in the prevalence of persons allergic to neomycin. The possibility of such a reaction should be borne in mind.

Contraindications: Not for use in the external ear canal if the eardrum is perforated. These products are contraindicated in those individuals who have shown hypersensitivity to any of the components.

Complete literature available on request from Professional Services Dept. PML.

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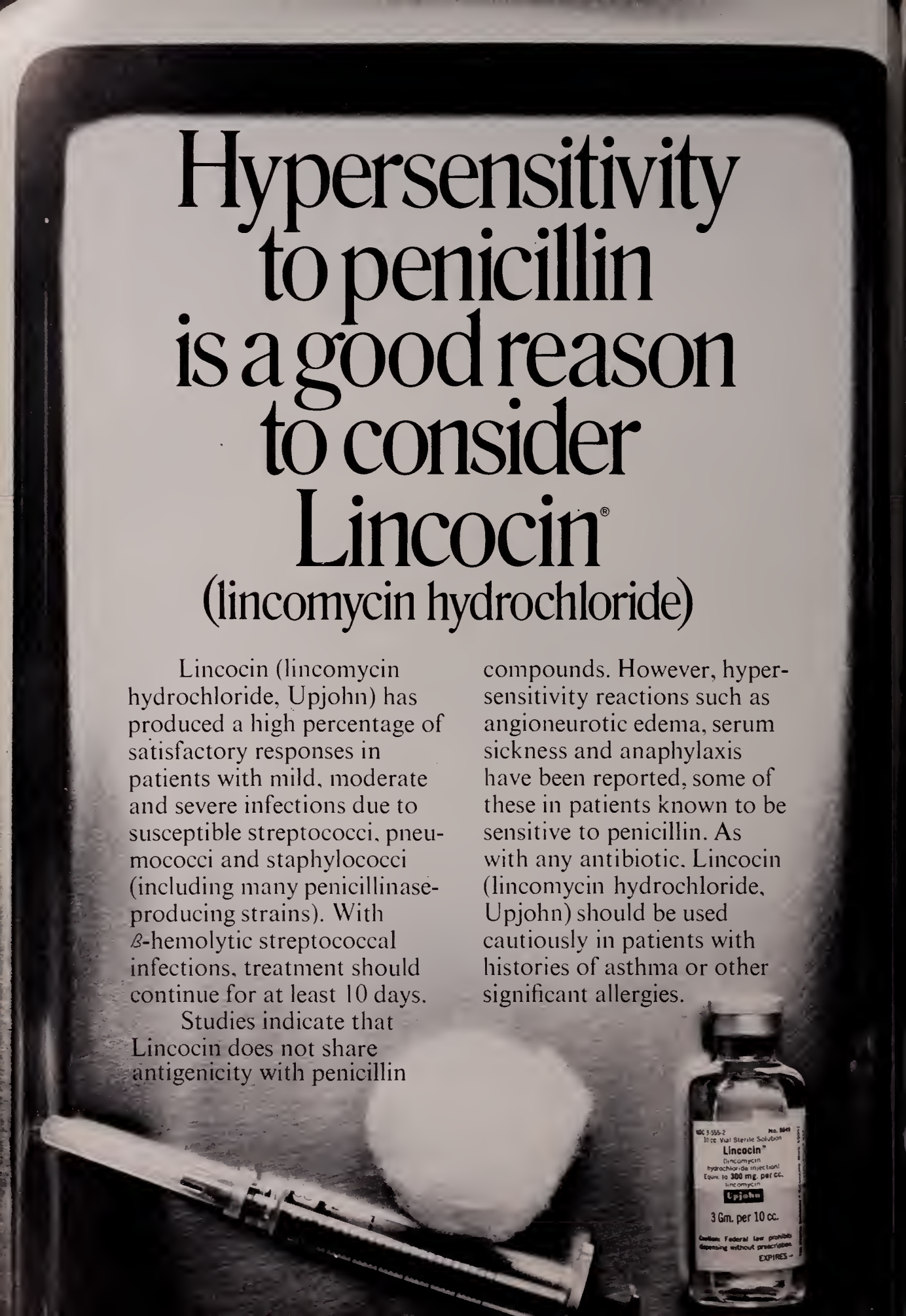
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(lincomycin hydrochloride)

Lincocin (lincomycin hydrochloride, Upjohn) has produced a high percentage of satisfactory responses in patients with mild, moderate and severe infections due to susceptible streptococci, pneumococci and staphylococci (including many penicillinase-producing strains). With β-hemolytic streptococcal infections, treatment should continue for at least 10 days.

Studies indicate that Lincocin does not share antigenicity with penicillin compounds. However, hypersensitivity reactions such as angioneurotic edema, serum sickness and anaphylaxis have been reported, some of these in patients known to be sensitive to penicillin. As with any antibiotic, Lincocin (lincomycin hydrochloride, Upjohn) should be used cautiously in patients with histories of asthma or other significant allergies.



So is penicillin-resistant staph.

Lincocin (lincomycin hydrochloride, Upjohn) has been demonstrated to be effective in susceptible penicillinase-producing staphylococcal infections resistant to penicillin (including ampicillin). However, resistant staphylococcal strains have been recovered; resistance appears to occur in a slow stepwise manner. As with all antibiotics, susceptibility studies should be performed.

Intramuscular and intravenous injections of Lincocin (lincomycin hydrochloride, Upjohn) are generally well tolerated. Instances of hypotension following parenteral administration have been reported, particularly after too rapid intravenous administration.

Sterile Solution (300 mg. per ml.)

Lincocin®
(lincomycin hydrochloride, Upjohn)

For further prescribing information, please see following page.



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Sterile Solution (300 mg. per ml.)

Lincocin®

(lincomycin hydrochloride, Upjohn) for respiratory tract, skin, soft-tissue, and bone infections due to susceptible streptococci, pneumococci, and staphylococ

Each preparation contains:	Lincomycin hydrochloride monohydrate equivalent to lincomycin base
250 mg. Pediatric Capsule	250 mg.
500 mg. Capsule	500 mg.
*Sterile Solution per 1 ml.	300 mg.
Syrup per 5 ml.	250 mg.

*Contains also: Benzyl Alcohol 9 mg.; and, Water for Injection—q.s.

An antibiotic chemically distinct from others available, indicated in infections due to susceptible strains of staphylococci, pneumococci, and streptococci. *In vitro* susceptibility studies should be performed.

CONTRAINDICATIONS: History of prior hypersensitivity to Lincocin (lincomycin hydrochloride). Not indicated in the treatment of viral or minor bacterial infections.

WARNINGS: Cases of severe and persistent diarrhea have been reported and at times drug discontinuance has been necessary. This diarrhea has been occasionally associated with blood and mucus and at times has resulted in acute colitis. This reaction usually has been associated with oral therapy, but occasionally has been reported following parenteral therapy. Although cross sensitivity to other antibiotics has not been demonstrated, make careful inquiry concerning previous allergies or sensitivities to drugs. Safety for use in pregnancy has not been established and Lincocin is not indicated in the newborn. Reduce dose 25 to 30% in patients with severe impairment of renal function.

PRECAUTIONS: Like any drug, Lincocin should be used with caution in patients having a history of asthma or significant allergies. Overgrowth of nonsusceptible organisms, particularly yeasts, may occur and require appropriate measures. Patients with pre-existing monilial infections requiring Lincocin therapy should be given concomitant antimonilial treatment. During prolonged Lincocin therapy, periodic liver function studies and blood counts should be performed. Not recommended (inadequate data) in patients with pre-existing liver disease unless special clinical circumstances indicate. Continue treatment of β-hemolytic streptococci infection for ten days to diminish likelihood of rheumatic fever or glomerulonephritis.

ADVERSE REACTIONS: *Gastrointestinal*—Glossitis, stomatitis, nausea, vomiting. Persistent diarrhea, enterocolitis, and pruritus ani. *Hemopoietic*—Neutropenia, leukopenia, agranulocytosis, and thrombocytopenic purpura have been reported. *Hypersensitivity reactions*—Hypersensitivity reactions such as angioneurotic edema, serum sickness, and anaphylaxis have been reported, sometimes in patients sensitive to penicillin. If allergic reaction occurs, discontinue drug. Have epinephrine, corticosteroids, and antihistamines available for emergency treatment. *Skin and mucous membranes*—Skin rashes, urticaria, vaginitis, and rare instances of exfoliative and vesiculobullous dermatitis have been reported. *Liver*—Although no direct relationship to liver dysfunction is established, jaundice and abnormal liver function tests (particularly serum transaminase) have been observed in a few instances.



Cardiovascular—Instances of hypo sion following parenteral administra have been reported, particularly after rapid I.V. administration. Rare instar of cardiopulmonary arrest have been ported after too rapid I.V. administrati If 4.0 grams or more administered I dilute in 500 ml. of fluid and admini no faster than 100 ml. per hour. *Lo reactions*—Excellent local tolerance d onstrated to intramuscularly administe Lincocin. Reports of pain following jection have been infrequent. Intra nous administration of Lincocin in to 500 ml. of 5% glucose in distil water or normal saline has produced local irritation or phlebitis.

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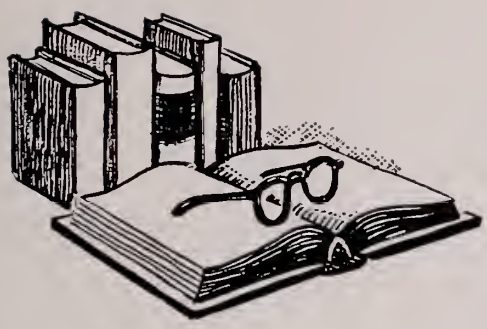
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Receipt of the following books is acknowledged. While time and space will not permit review of all books received, medical readers interested in reviewing particular books are invited to address requests to the Editor. Following acceptance of a written review for publication, a reviewer may then retain the book reviewed for his personal or favorite library.—Ed.

Guides to the Evaluation of Permanent Impairment by the Committee on Rating of Mental and Physical Impairment of the American Medical Association. Pp. 164. Price $5. Copyright, Chicago, American Medical Association, 1971.

Brands, Generics, Prices and Quality by PMA. Pp. 118. Price $1.00. Washington, D. C., Pharmaceutical Manufacturers Association, 1971.

Fifth Conference on War Surgery, Tokyo, Japan, March 29-April 2, 1971. Pp. 73. Copies available from CINCPAC, Attn: Surgeon, FPO San Francisco, California 96610.

Development and Legal Regulation of Coercive Behavior Modification Techniques With Offenders by Ralph K. Schwitzgebel, Ed.D., J.D., Harvard University. Pp. 90. Price 45 cents. Public Health Service Publication 2067, U.S. Government Printing Office, Washington, D.C. 20402.

Symposium on the Functional Physiopathology of the Fetus and Neonate, Clinical Correlations. Edited by Harold Abramson, M.D. Pp. 182. 61 illustrations. Price $15.00. St. Louis, The C. V. Mosby Company, 1971.

The Mental Health of the Child. Edited by Julius Segal, Ph.D. Pp. 588. Price $5.00. Washington, D. C., U.S. Government Printing Office, 1971.

Handbook of Clinical Dermatoglyphs by Musallam S. Elbualy and Joan D. Schindeler. Pp. 64. Price $6.95. Coral Gables, University of Miami Press, 1971.

Synopsis of Pediatrics by James G. Hughes, M.D. Pp. 1141. Illustrated. Price $14.50. St. Louis, The C. V. Mosby Company, 1971.

Speech Pathology by William H. Perkins, Ph.D. Illustrated. Pp. 449. Price $11.75. St. Louis, The C. V. Mosby Company, 1971.

Review of Medical Physiology by William F. Ganong, M.D. Pp. 573. Illustrated. Price $8.50. Los Altos, California, Lange Medical Publications, 1971.

The Human Heart—A Guide to Heart Disease. Second Edition by Brendan Phibbs, M.D. Pp. 247. 102 illustrations. Price $5.75. St. Louis, The C. V. Mosby Company, 1971.

Health Resources Statistics by U. S. Department of Health, Education, and Welfare. Pp. 362. Price $3.25. Washington, D. C., U.S. Government Printing Office, 1970.

Management of Juvenile Diabetes Mellitus, Second Edition by Howard S. Traisman, M.D. Pp.. 223. 62 illustrations. Price $19.75. St. Louis, The C. V. Mosby Company, 1971.

Book Review

Medical Parasitology by J. Walter Beck, B.S., M.S., Ph.D. and Elizabeth Barrett-Connor, B.A., M.D., D.C. M.T. (London). Pp. 210. Price $10.75. 150 illustrations. St. Louis, The C. V. Mosby Company, 1971.

The authors, either presently or in the immediate past, associated with our own University of Miami medical school, state in the preface of this small volume, that their text is an outgrowth of a manual developed by the senior author for teaching medical parasitology to medical students, technologists and practicing physicians. Also the text is to serve as a simplified handbook. It is an excellent reference for the identification of, and clinical conditions associated with, the more common parasitic diseases. The nomenclature and classification of the organisms is simplified and understandable. The importance of collection methods, laboratory techniques, and pitfalls in diagnosis are stressed. Vectors are also described and classified. Insects and arthropods which occasionally annoy the outdoorsman are enumerated. The book would be most useful in the laboratory as a quick reference source and would serve admirably as a manual for review for medical parasitology examinations.

COURTLANDT D. BERRY, M.D.
NAPLES

Dean's Page

THE TEACHING HOSPITAL AND THE SCHOOL OF MEDICINE
A Plan for Affiliation

E. M. Papper, M.D.

The University of Miami School of Medicine is a private, independent university school, but it receives substantial assistance from the State of Florida, which puts it into a rather unique aspect in many ways.

However, because of the circumstances and the terms of the aid given to the School of Medicine by the State of Florida, one of the areas, i.e., the problems of affiliation with hospitals to provide for the important mission of education of students and of house officers is not included in these arrangements. The State is not permitted, under present legislation, to provide capital funds to the University of Miami School of Medicine and it has proposed no programs of affiliation with state-owned or state-controlled hospitals.

In a School of Medicine that has expanded its enrollment by something more than 50% in the last three years, the problem of affiliations with fine hospitals for teaching purposes becomes a serious matter indeed.

From the beginning of the establishment of the School of Medicine of the University of Miami, the Jackson Memorial Hospital, at that time owned by the City of Miami, now owned by Dade County was the sole teaching institution for the School. Subsequently, an affiliation was developed with the Veterans Administration and at present these two institutions are the backbone of the education of medical students and of interns and residents.

However, in the last two or three years an extensive network of affiliation has been developed to provide educational opportunities for medical students and to provide the opportunity for collaboration and research with other institutions. These include an organic affiliation with the Mount Sinai Hospital of Miami Beach, an evolving and developing affiliation with the Cedars of Lebanon Hospital in Miami, an affiliation for the teaching of elective courses in clinical medicine at the Baptist Hospital in South Miami, and an agreement in principle to provide affiliation opportunities with Broward General Hospital—a County Hospital, which has a substantial number of private patients—in the reasonably near future.

The School of Medicine is also fortunate to have the Mailman Center for Child Development where opportunities for education exist for medical students and house officers in patients who are afflicted with one or another form of mental retardation or neurological deficit of serious proportions. An opportunity is also being developed in the East Ridge Development—a project for geriatrics controlled by the Lutheran Church.

This need for the provision of opportunities for education is becoming a prominent one in many schools throughout the nation and I am sure is the case in the University of Florida and the University of South Florida, both state owned and operated institutions.

A most interesting development has occurred recently in Toronto, Ontario, Canada, in which the University of Toronto and its teaching hospitals and affiliated institutions have formed a voluntary association which they entitle "University Teaching Hospitals Association."

It is still too early in the course of the experience in Toronto to make judgments as to the direction of those institutions but it is clear that they mean to develop a remarkably close interaction for common goals and the implementation of common policies and programs for their mutual benefit. They propose to do this by agreement on common policies and yet maintain the preservation of their own independence for individual goals

Dr. Papper is Vice President for Medical Affairs and Dean, University of Miami School of Medicine, Miami.

that are not part of the community effort in this regard.

Their objectives are: (1) To encourage the development among its members of integrated programs of excellence in patient care, education and research in the field of health; (2) To coordinate the operations of its members in such a manner as to eliminate unnecessary duplication of effort, service and facilities; and (3) To promote the operation and growth of the association as an efficient and effective health organization.

We have similar problems and similar aspirations in Miami. Our affiliation program is being developed in the spirit that a hospital is primarily designed for the care of the sick and a school of medicine is primarily designed for the education of a number of different kinds of students, including medical students and house officers, in a health sciences center. It is believed that these goals can be mutually reinforcing rather than competitive.

We are hard at work in an attempt to develop such collaboration and are hopeful and optimistic that it will be possible to do so.

▶ Dr. Papper, Box 875, Biscayne Annex, Miami 33152.

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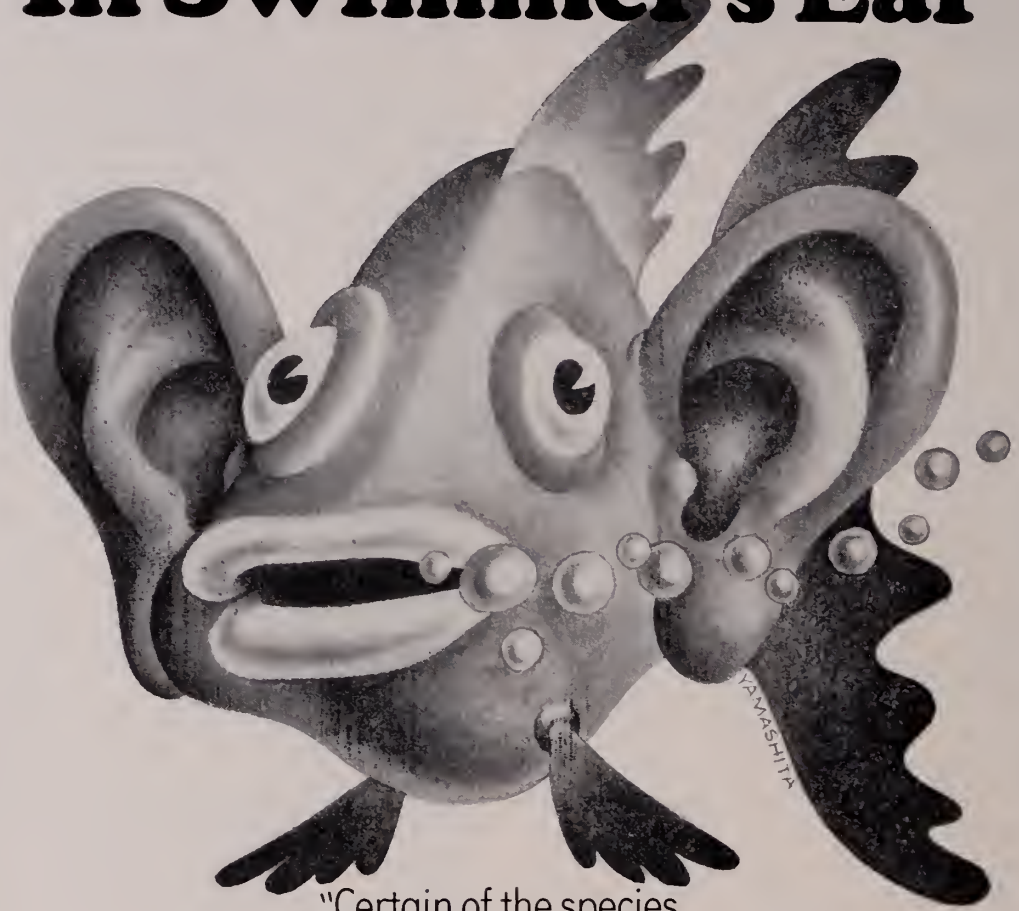


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Precautions: Sensitization may occur with prolonged use and is more likely to develop in eczematous otitis externa. To minimize such reactions (a) limit application to a week or less, and (b) avoid use of excessive amounts which may run down the face.

This preparation is not indicated for use in treatment of cholesteatoma, where surgical intervention is necessary.

Supplied: Bottle of 15 cc. with dropper.

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TEST	HYPOTHYROID	SYNTHROID THERAPEUTIC NORMAL
P.B.I.	Less than 4 mcg %	6-10 mcg %
T_4 By Column	Less than 3 mcg %	7-9 mcg %
T_3 (Resin)	Less than 25%	27-35%
T_3 (Red Cell)	Less than 11%	11.5-18%
Free Thyroxine	Less than 0.7 nanograms %	0.7-2.5 nanograms %
Murphy-Pattee	Less than 2.9 mcg %	4-11 mcg %

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AS WITH ANY THYROID PREPARATION, CAUTIOUS OBSERVATION OF THE PATIENT DURING THE BEGINNING OF THERAPY WILL ALERT THE PHYSICIAN TO ANY UNTOWARD EFFECTS.

Side effects, when they do occur, are related to excessive dosage. Caution should be exercised in administering the drug to patients with cardiovascular disease. Read the accompanying prescribing information for additional data or write Flint Laboratories.

Choose the Smooth Road ...to thyroid replacement therapy





'ATIENTS CAN BE UCCESSFULLY AAINTAINED ON A RUG CONTAINING HYROXINE ALONE.

hyroxine (T_4) is, as you know, ie major circulating hormone roduced by the thyroid gland. $_3$ is also produced, in smaller nounts, and is active at the ellular level. For years it has been working hypothesis among ndocrinologists that T_4 is nverted by the body to T_3. In 970 this process, called deiodination," was demonstrated y Sterling and Braverman[2]. $_4$ does convert to T_3, though the recise quantities are still being udied.

The conversion has been inically demonstrated during the dministration of T_4 to athyrotic atients. Their thyroid status is ormalized on SYNTHROID alone, t the presence of T_3 in these atients has been clearly shown.

WHY DOES SYNTHROID COST LESS THAN SYNTHETIC DRUGS CONTAINING T_3?

Very simple. T_3 costs more to make synthetically than does T_4. So it is economically necessary for a synthetic thyroid medication containing T_3 to cost more than one containing T_4 alone. Synthetic combinations cost patients nearly 50% more than SYNTHROID[4] because the T_3 costs more to start with; also there is the additional expense of formulating a tablet containing two active ingredients.

1. Latiolais, C. J., and Berry, C. C.: Misuse of Prescription Medications by Outpatients, *Drug Intelligence & Clin. Pharm.* 3:270-7, 1969.
2. Braverman, L. E., Ingbar, S. H., and Sterling, K.: Conversion of Thyroxine (T4) to Triiodothyronine (T3) in Athyreotic Human Subjects, *J. Clin. Invest.* 49:855-64, 1970.
3. American Druggist BLUEBOOK, March, 1971.

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ACTS:
ynthetic thyroid drugs are an nprovement over animal gland roducts. Patients, even athyrotic nes, can be completely aintained on SYNTHROID (T_4) one. Thyroid function tests are asy to interpret since they are *redictably* elevated when the atient adheres to SYNTHROID. f all synthetic thyroid drugs, YNTHROID is the most conomical to the patient.

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Indications: SYNTHROID (sodium levothyroxine) is spe cific replacement therapy for diminished or absen thyroid function resulting from primary or secondar atrophy of the gland, congenital defect, surgery, ex cessive radiation, or antithyroid drugs. Indications fo SYNTHROID (sodium levothyroxine) **Tablets** includ myxedema, hypothyroidism without myxedema, hypo thyroidism in pregnancy, pediatric and geriatric hypo thyroidism, hypopituitary hypothyroidism, simpl (nontoxic) goiter, and reproductive disorders asso ciated with hypothyroidism. SYNTHROID (sodium levo thyroxine) for **Injection** is indicated for intravenous use in myxedematous coma and other thyroid dysfunc tions where rapid replacement of the hormone is re quired. The injection is also indicated for intramuscula use in cases where the oral route is suspect or con traindicated due to existing conditions or to absorp tion defects, and when a rapid onset of effect is no desired.

Precautions: As with other thyroid preparations, a overdosage may cause diarrhea or cramps, nervous ness, tremors, tachycardia, vomiting and continue weight loss. These effects may begin after four or fiv days or may not become apparent for one to thre weeks. Patients receiving the drug should be observe closely for signs of thyrotoxicosis. If indications o overdosage appear, discontinue medication for 2- days, then resume at a lower dosage level. In patient with diabetes mellitus, careful observations should b made for changes in insulin or other antidiabetic dru dosage requirements. If hypothyroidism is accom panied by adrenal insufficiency, as Addison's Disea (chronic subcortical insufficiency), Simmonds's Dis ease (panhypopituitarism) or Cushing's syndrome (hy peradrenalism), these dysfunctions must be correcte prior to and during SYNTHROID (sodium levothyroxine administration. The drug should be administered wit caution to patients with cardiovascular disease; devel opment of chest pains or other aggravations of cardi vascular disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardia infarction. **Side effects:** The effects of SYNTHRO (sodium levothyroxine) therapy are slow in being mani fested. Side effects, when they do occur, are secondar to increased rates of body metabolism; sweating, hear palpitations with or without pain, leg cramps, an weight loss. Diarrhea, vomiting, and nervousness hav also been observed. Myxedematous patients with hear disease have died from abrupt increases in dosage thyroid drugs. Careful observation of the patient durin the beginning of any thyroid therapy will alert th physician to any untoward effects.

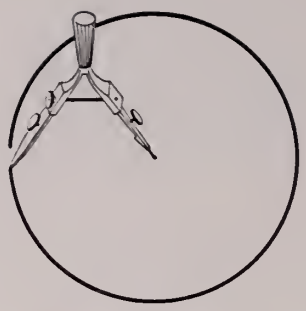
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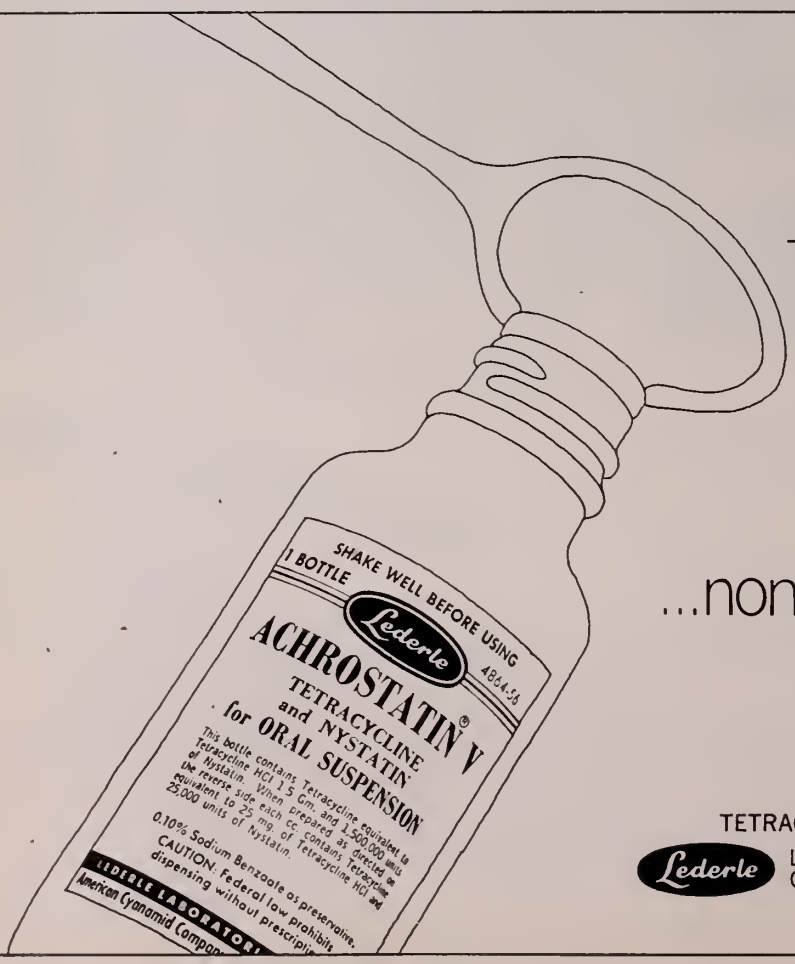
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ORGANIZATION

Podiatrists, The Other Doctors

Joseph C. Flynn, M.D. and E. W. Trice, D.P.M.

In May of 1969, the Florida Medical Association reactivated the Committee on Podiatry for the express purpose of studying the profession of podiatry in the State of Florida. The Committee has established communication with the Medical Liaison Committee of the Florida Podiatric Association.

In order to adequately study the podiatry situation, a member of the FMA Podiatry Committee visited the National Headquarters of the American Podiatry Association in Washington, D.C. and the Pennsylvania College of Podiatric Medicine in Philadelphia. Several preliminary meetings were arranged, and finally the FMA Podiatry Committee met with the Florida Podiatric Association's Medical Liaison Committee in September of 1970.

Out of this meeting has come an appreciation of each other's problems. A good deal of misinformation has been corrected. Through this avenue of communication, both organizations have begun the first sound steps toward a cooperative effort in the field of health services for the people of Florida.

Nevertheless, we are aware that there is still considerable apprehension, distrust, and even dislike between our two professions. The proposed exchange of speakers recently between the Florida Podiatry Association and the Florida Medical Association evoked much comment, good and bad, in both organizations.

The purpose of this article is to provide the Florida Medical Association membership a candid view of podiatry in the United States and especially in Florida.

Podiatrists, formerly known as chiropodists, have gone through the process of changing their professional identity solely to that of podiatry. In the years past, graduates received the degree, Doctor of Surgical Chiropody, D.S.C., and indeed, many practitioners are so identified today. New podiatrists may now receive a Doctor of Podiatric Medicine, D.P.M., degree. State and federal regulations, insurance company forms, and older textbooks may continue to refer to chiropody; but the profession indicated is that of podiatry. Before long, the identification of chiropody will assume only historical interest.

The early roots of podiatric care are found in the European Trade Guilds of the 19th century. From this origin, the podiatry profession has evolved. There are two men prominent in the annals of podiatric history, William Durlacher and Isachar Zacharie. Durlacher, Queen Victoria's private foot doctor, is credited with the first podiatry text, *A Treatise on Corns and Bunions,* published circa 1850. Zacharie was the personal podiatrist to Abraham Lincoln and gained some fame as a secret courier in the Civil War. The first American podiatric text was published by Zacharie in Cincinnati in 1862. The first foot care practice in the United States was established in Boston during this time. As the trade flourished, other people took up the work and, in 1895, the first law to license chiropodists was passed in New York State.

Podiatrists deal entirely with conditions of the foot and leg. They treat foot and leg deformities, disease and infections, order and interpret laboratory tests, prescribe drugs, institute shoe and appliance therapy, administer physical therapy and palliatively accommodate as well as surgically correct existing pathology within their scope of practice.

By law, the primary limitations on the practice of podiatrists are that they may not amputate the foot or leg, and the Florida Statutes limit their administration of anesthetics to those of a local nature such as infiltration, nerve block, etc. This does not preclude the use of general anesthesia when administered by an anesthetist under medical supervision. Inasmuch as the foot is an integral part of the lower extremity and cannot be considered separate therefrom, the Florida State Board of Podiatry Examiners has

Dr. Flynn is chairman, Florida Medical Association Committee on Podiatry.

interpreted the statutes to mean that the leg ends at the anterior tibial tuberosity.

Drug privileges are similar to those exercised by medical doctors. In addition to drugs for local use on the foot, podiatrists prescribe systemic medications such as antibiotics and analgesics. Understandably, podiatrists hold narcotic licenses.

Podiatrists are trained to recognize systemic conditions which may manifest themselves in the foot and to refer these patients to such practitioners as may be needed. For example, when a patient with undiagnosed gout presents a painful great toe, the podiatrist would diagnose and treat the immediate symptoms and send the patient to his family physician for systemic treatment.

Specialists are recognized and certified within the podiatry profession. Only in one specialty area in podiatry is postgraduate training a requirement. Residency in foot surgery is one year, while certification in other specialty areas involve testing and practice requirements only.

The specialties are: foot surgery, dermatology, orthopaedics and radiology. Although certified, podiatric specialists do not limit their entire practice time to that specialty. As a rule, specialists maintain interest in a particular field while continuing to do general podiatry practice.

In the United States, approximately one of four practicing podiatrists has hospital privileges. The Joint Commission on Accreditation of Hospitals approves staff privileges for podiatrists within this framework.

Podiatrists and staff physicians treat inpatients under a dual responsibility concept. The medical doctor must do an admission history and physical and has the responsibility of the nonpodiatric aspects of the patient's care. He is required to check the heart and lungs before a general anesthetic is given and would treat any systemic complications which might arise, such as pneumonia or thrombophlebitis.

The podiatrist has responsibility for the foot treatment and orders drugs and medications necessary for proper care. Providing the hospital stay is uncomplicated, the podiatrist then discharges the patient. Recognizing this dual responsibility and its ensuing liabilities, those podiatrists afforded hospital privileges carry "hold harmless" insurance coverage through the American Podiatry Association which protects the coadmitting physician from any act of negligence or malpractice committed by the podiatrist.

Inasmuch as podiatry most closely approximates those areas of treatment falling within the scope of orthopaedic surgery, a certain degree of friction has developed between the two disciplines. Many orthopaedists resent the dialogues between the Florida Medical Association and the Florida Podiatry Association, which nevertheless, have greatly clarified the dual, if overlapping degree of responsibility for care of the foot disabilities.

As long ago as 1932, the Judicial Council of the AMA recognized podiatry as an ancillary to the practice of general medicine. Aside from pronouncements from medical groups, a health professions relation to the national health care scheme can be defined by examining these policies adopted by major institutions in our society. In the case of podiatry, these facts emerge:

The Social Security Administration's definition of "Physician" includes podiatrists, and, as a result, their services are covered under Medicare.

In the State of Florida, podiatry is also covered under Medicaid.

Podiatrists are commissioned in the Armed Forces and there are at present 74 commissioned officers serving, 59 in the Army, 11 in the Navy and four in the Air Force.

Students of podiatry are eligible for federal loans via the Health Manpower Act.

The Public Health Service utilizes podiatrists in an advisory capacity and there are 23 podiatrists in an advisory capacity. There is an equal number in the Veteran's Administration. As yet, no podiatrists have served in the Peace Corps although they are welcome to apply for such service and encouraged to do so by the Corps.

Blue Shield, and most major private insurance companies include podiatric services in their schedule of benefits. At this time, 85% of all Blue Shield insurance subscribers may seek the professional services of a podiatrist.

Local health departments and welfare agencies use the services of podiatrists.

Podiatrists are on the faculties of such medical schools as the Medical College of Virginia, Georgetown Medical School, and the University of California Medical School. What then, is the academic background of this profession?

Two years of college (60 semester hours) are required for entrance to a school of podiatry, which includes the study of biology, chemistry, physics or mathematics, English, and one semes-

ter of organic chemistry. More than 80% of entering freshmen in podiatry classes have a baccalaureate degree.

The five colleges of podiatry in the United States are California College of Podiatric Medicine in San Francisco, Illinois College of Podiatric Medicine in Chicago, M. H. Lewis College of Podiatry in New York City, Ohio College of Podiatry in Cleveland, and the Pennsylvania College of Podiatric Medicine in Philadelphia.

These are nonprofit, private institutions which are not affiliated with other colleges or universities and do not receive state tax support. (The Pennsylvania School is an exception as it receives state tax funds). They do, however, receive federal funds for improvement grants. In fiscal year 1967-68, the five colleges received a total of $559,850. In 1968-69, the total grants authorized were $918,127. In addition to private contributions, clinic fees and student tuition, the schools enjoy regular support from their alumni. Indeed, 40% of dues paid to the American Podiatry Association go to support podiatry education.

In 1960, there were a total of 124 podiatrists and 76 doctors of medicine on the faculties. We are informed that there are Ph.D.'s as well, numbering 20.

There are about 850 students in podiatry schools this year. Their curriculum covers four years and a minimum of 4,142 clock hours of instruction, at the end of which the Doctor of Podiatric Medicine, D.P.M., is awarded.

The first two years cover basic science courses, and the last two years emphasize clinical skills. Course titles include anatomy, (gross, microscopic, developmental); biochemistry; physiology; microbiology; pathology; pharmacology; roentgenology; medicine; physical medicine; dermatology; socioeconomic relations; orthopaedics; surgery; neurology; public health; practice management; ethics and jurisprudence; preventive podiatry and hygiene; history of podiatry and hospital relations and service. The majority of the students' studies in the last two years involve clinical experience under supervision in outpatient clinics and affiliated hospitals.

Before entering practice, the young podiatrist is required to pass a state board examination. In most states, the examining boards are entirely composed of podiatrists, but in 13 states, doctors of medicine are also on the board. In two states, the complete board is comprised of doctors of medicine. In Florida the examining board is a composite of three podiatrists and one medical doctor.

Further, some states require applicants to serve a one-year internship in a hospital or clinic. Nationally, there are five hospitals or clinics approved for podiatry internships by the Council on Education of the American Podiatry Association. Currently, 40% of all graduating podiatrists take additional training in the form of internships.

When asked to describe the national research budget in podiatry, how it is funded and the chief areas of activity, the American Podiatry Association replied: "Research at the podiatry colleges is being stimulated by grants from the Fund for Podiatry Education and Research which began annual faculty improvement grants to the colleges in 1963." The fund has also provided a grant of $46,926 to assist the colleges in financing a clinical curriculum study. A basic science curriculum study was done in 1969, which forms the current basic standard.

Adding to the fund of knowledge of diseases of the foot, podiatry supports and contributes to the *Journal of the American Podiatry Association, Current Podiatry, Journal of the Florida Podiatry Association, Podiatry News* and to basic texts such as *Diseases of the Foot,* (Weinstein) exerpted in *Surgery of the Foot,* (Duvries), *Peripheral Vascular Diseases,* (Alan, Barker & Hines) and *Arthritis,* (Comreo), etc.

There are 154 podiatrists in active practice in Florida. Their existence cannot be ignored by medical doctors. Podiatrists are doing more and more surgery of the foot, most of it in their offices. Osteopathic hospitals have given podiatrists privileges in many counties and in these, the podiatrists have moved into the operating room.

Many orthopaedists feel that podiatrist fees are disproportionately high for foot surgical procedures. On the other hand, podiatrists resent the denial of recognition and of hospital privileges by medical doctors. Many of these "hurts" will never fully heal on both sides.

The Podiatry Committee of the Florida Medical Association and the Medical Liaison Committee of the Florida Podiatry Association have cooperated to present this article for information. Further progress can be made only by keeping these lines of communication open.

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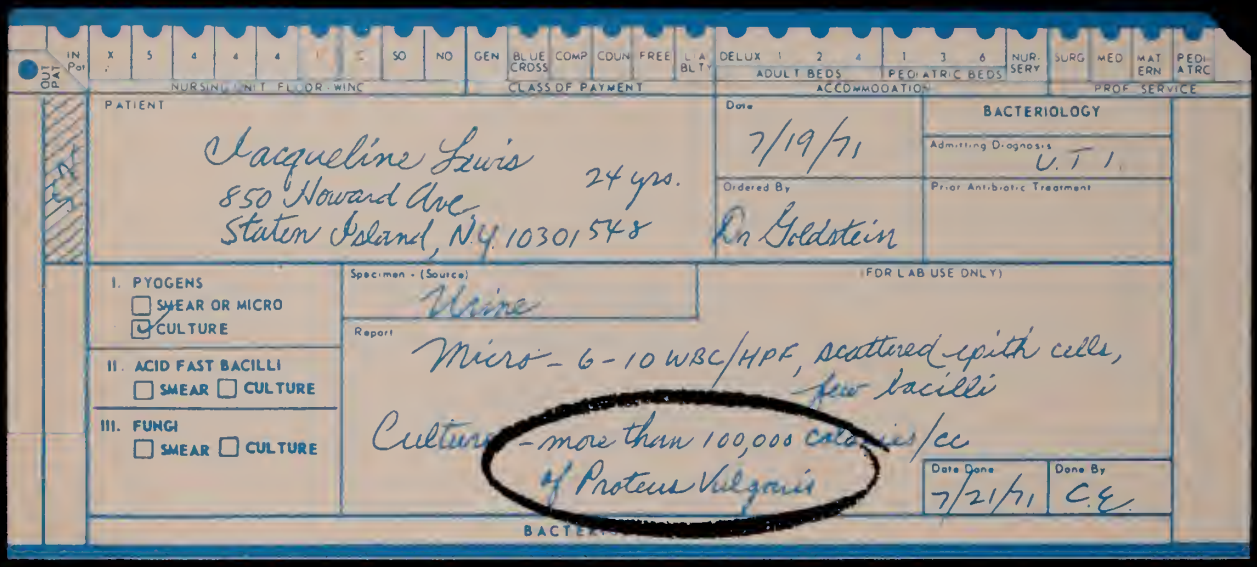
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Medical News

Central Florida Medical Meeting

The 17th Annual Central Florida Medical Meeting will be held at Disney World, near Orlando, March 15-18, 1972.

The Orange County Medical Society will sponsor the seminar on "Cardiology, Endocrinology and Infectious Diseases."

Miami Medical School Receives Grant

The Commonwealth Fund of New York has awarded a grant of $34,344 to the University of Miami School of Medicine to help fund a new medical curriculum.

The money will be used to implement the special program enabling individuals with Ph.D. degrees in natural and biological sciences to obtain medical degrees within a two-year period. The program, which began in July, has 17 men and three women enrolled.

It is hoped that the new program will help ease the nation's physician manpower shortage by tapping the supply of scientists trained in allied fields.

Oncology Program in Miami

An in-house clinical training program in oncology has been announced by the University of Miami School of Medicine.

Programs have been arranged in all clinical disciplines for physicians interested in spending two weeks or more at the University. The program is sponsored by the Clinical Cancer Training Program of the University and is supported by the National Cancer Institute.

Samuel A. Gunn, M.D., Professor of Pathology at the School of Medicine, is Program Director.

Interested physicians should contact Howard E. Lessner, M.D., Medical Oncology Division, University of Miami School of Medicine, P. O. Box 875, Biscayne Annex, Miami, Fla. 33152.

Dean Suter Assumes AMA-AAMC Post

Emanuel Suter, M.D., of Gainesville, has been appointed to the AMA-AAMC Liaison Committee on Medical Education.

He will represent the American Association of Medical Colleges on the Committee, which also includes representatives of the American Medical Association. Dr. Suter, Dean of the University of Florida College of Medicine, succeeds Merlin K. DuVal, M.D., who recently became Assistant Secretary of Health, Education and Welfare for Health and Scientific Affairs.

The Executive Council of the AAMC selected Dean Suter for the vacancy.

Chest Physicians Announce Florida Course

The American College of Chest Physicians has announced a 13-course postgraduate program for the coming academic year, including one in Florida.

A course in "Management of Cardiorespiratory Failure" will be held in Miami, March 5-10, 1972. The University of Miami School of Medicine will join the College in sponsorship of the course.

Additional information about this and other ACCP courses may be obtained by writing to American College of Chest Physicians, 112 East Chestnut Street, Chicago, Illinois 60611.

Migrant Health Survey is Completed

Florida's Bureau of Comprehensive Health Planning has completed a survey of medical service to migrant farm workers in the state.

The study was conducted in cooperation with the Florida Medical Association.

Questionnaires were sent to 421 physicians in 23 counties which attract 195,000 migrants during the peak of the harvest. Sixty-three per cent responded, and of these, 125 physicians reported that they had treated 26,828 migrants and dependents over a 12-month period. One hundred and seven of these physicians reported losses from non-payment and non-billing totaling $137,948.

Reports of the survey are being sent to county medical societies. Additional copies may be obtained from the Bureau of Comprehensive Health Planning, 908 South Bronough St., Tallahassee, Fla. 32304.

Ophthalmologists Meet in Orlando

The annual interim meeting of the Florida Society of Ophthalmologists will meet December 9-11 at Bay Hill Country Club in Orlando. Among other subjects to be discussed will be ophthalmic assistants. For more information contact Charles F. McCrory, M.D., 111 West Adams Street, Jacksonville 32202.

Courses on Human Relations-Drug Dependency

Fort Lauderdale University is offering three courses in the category of "Human Relations-Drug Dependency" during the current semester.

Courses are entitled Introduction to the Physiology and Psychology of Drug Abuse; Techniques of Drug Dependency Management; and Advanced Techniques of Drug Dependency Counseling, Sensitivity Training and Experimental Programs.

Faculty includes David J. Lehman, M.D., of Fort Lauderdale, a member of the Ad Hoc Committee on Drug Abuse of the Florida Medical Association; Arthur T. Stillman, M.D., and Stanley W. Keiserman, Ph.D.

Scientific Meeting at Disney World

Recent advances in internal medicine will be discussed during a scientific program to be held at Disney World near Orlando, Nov. 19-21.

Sponsors of the program are the Florida Society of Internal Medicine and the American College of Physicians. Speakers from the schools of medicine of the University of Miami and the University of Florida will update participants on new developments in nephrology, rheumatology, hematology and other fields.

A registration fee of $25.00 will be charged, and additional information may be obtained by contacting Albert M. Ziffer, M.D., 22 West Lake Beauty Drive, Orlando, Fla. 32806.

Conference on Sports Medicine

The 13th National Conference on the Medical Aspects of Sports will be held in New Orleans, La., on Sunday, Nov. 28.

The program, at the Jung Hotel, is held in conjunction with the Clinical Convention of the American Medical Association and is sponsored by the AMA Committee on the Medical Aspects of Sports.

Topics this year will include drugs in sports, protection of the lower extremities, electrolyte and thermal balance and crucial health perspectives.

Nonmedical athletic personnel are welcome to the conference as well as physicians. Additional information may be obtained from the Committee on the Medical Aspects of Sports, American Medical Association, 535 North Dearborn Street, Chicago, Ill. 60610.

Cardiology College Admits Five Floridians

Five Dade County physicians have been admitted to Fellowship in the American College of Cardiology. Dr. Henry R. Cooper of Fort Lauderdale, ACC Governor for Florida, listed the new Fellows as: Drs. Eugene L. Nagel of Miami; and Arthur J. Gosselin, Frank J. Hildner, Martin J. Nathan, and K. Ramaswamy, all of Miami Beach.

Educational Program on Heart Disease

"Controversies in Cardiovascular Medicine: Practical Aspects" is the title of a continuing medical education program which will be conducted in Miami, Jan. 12-14, 1972.

Sponsored by the American College of Cardiology in cooperation with the University of Miami School of Medicine, the program will be held at the Sheraton-Four Ambassadors Hotel.

Fees include $90 for members of the American College of Cardiology and $130 for nonmembers. Credit toward the American Medical Association's Physician's Recognition Award is available.

Additional information may be obtained by contacting Miss Mary Anne McInerny, Director of the Department of Continuing Education Programs, American College of Cardiology, 9650 Rockville Pike, Bethesda, Md. 20014.

Treatment of Teenagers for VD

A recent change in the law regarding treatment of minors for venereal disease has been pointed out by the Florida Division of Health.

As of Oct. 1, physicians may treat minors who have been exposed to VD without the consent of the parents or other responsible persons, according to Dr. E. Charlton Prather, Chief of the Bureau of Preventable Disease.

One year previously, physicians were given legal authority to treat, without parental consent, teenage patients who had contracted venereal disease.

Dr. Prather pointed out that parents or other responsible individuals may be informed if the physician considers it advisable.

American Physicians Art Association

We would like to invite our medical colleagues to become members of our national non-profit organization which is dedicated to furthering art interests of the medical profession; to broadening the physician's knowledge and appreciation of the past and present; to stimulating physician artists to produce works of art in the fields of painting, sculpture, photography, graphic arts, design and creative crafts; to holding a national annual exhibition of physicians' art works; and to stimulating regional art exhibitions of physicians' works at local, state and specialty meetings.

Our art exhibit is held annually in conjunction with the annual meeting of the American Medical Association. The APAA has a membership which extends across the entire United States, Canada and Latin America. Every state in the Union is represented through a Regional Director. It is the hope of the APAA to establish a central photographic archive of its members' art works, to be used for year round press and magazine publicity in the physicians' home towns as well as nationally.

You do not necessarily have to be currently engaged in any art activity to become a member. We also welcome the support of anyone interested in furthering physicians' art in America, as our organization is totally supported by the members and friends of the APAA. The types of membership are:

Life Sponsor Membership	$200.00
Sponsor Membership	30.00
Regular Membership	15.00
*Associate Membership	5.00

(*Associate Membership is for medical students, interns, and residents.)

If you are interested in becoming a member, or if you wish further information, please contact the President of APAA, A. M. Gottlieb, M.D., 3801 Miranda Avenue, Palo Alto, California 94304.

ACS Sectional Meeting in Miami

The preliminary program has been announced for a sectional meeting of the American College of Surgeons in Miami, Jan. 17-19, 1972. The meeting will be at the Sheraton-Four Ambassadors.

Program chairman for the meeting is Robert Zeppa, M.D., of Miami.

Information may be obtained by writing to the American College of Surgeons, 55 East Erie Street, Chicago, Ill. 60611.

Postgraduate Seminar in Surgery

The University of Miami School of Medicine will sponsor a Postgraduate Seminar in Surgery, Jan. 12-15, 1972.

Discussion topics will be "Surgical Care," "Transplantation," "The Pancreas" and "Pediatric Surgery."

A registration fee of $100 will be charged, and the program has been approved by the American Academy of General Practice for 16 hours of credit. Additional information may be obtained by contacting: Department of Surgery, University of Miami School of Medicine, Jackson Memorial Hospital, P. O. Box 875, Biscayne Annex, Miami, Fla. 33152.

Former State Physician Joins PMA

Frank B. Voris, M.D., a former Florida physician, has been appointed to the post of director of medical relations of the Pharmaceutical Manufacturers Association.

Dr. Voris received his M.D. degree from the University of Illinois School of Medicine in 1933, after which he entered private practice in Miami. He joined the Navy in 1941, and at the time of his retirement he was a surgeon in the Pacific with the rank of Rear Admiral.

Deadline for BNDD Registration

No extension has been granted past the October 1, 1971 deadline for Bureau of Narcotics and Dangerous Drugs registration. Anyone who does not have a valid BNDD registration number after October 1, 1971, will not be permitted to handle controlled substances as defined by Public Law 91-513 (CSA of 1970).

All efforts are being made by BNDD to expedite the processing of all new applications for BNDD registration.

We should point out that ESKATROL, FETAMIN and BIPHETAMINE are included as Schedule II nonnarcotic substances. Methylphenidate and phenmetrazine are being considered for inclusion as Schedule II nonnarcotic substances. No final order has been published to change the status of methylphenidate and phenmetrazine as of this writing.

For further information Contact: Anthony R. Acri, Group Supervisor, Compliance, Bureau of Narcotics and Dangerous Drugs, 1200 Biscayne Boulevard, Miami, Fla. 33132.

FMA Meetings

November 6	Committee on Health Insurance Manger Motor Inn, Tampa 1:00 p.m.
November 13-14	Committee on Relative Value Studies Gold Key Inn, Orlando Note: Members of the Council on Specialty Medicine and the Subcommittee on Specialty Medicine have been invited to this meeting.
November 12	Ad Hoc Committee, Florida Medical Insurance Trust Orlando 7:00-10:00 p.m.
December 7	Florida Joint Council on Health of Aging—10:00 a.m. Jacksonville (FMA Board Room)
11-12	Judicial Council Miami

Blue Shield Cites Enrollment Growth

Membership in the 72 Blue Shield plans of the United States and Puerto Rico exceeded 65.5 million at the end of last year.

The record membership was cited in the 1971 Annual Report of the National Association of Blue Shield Plans. The Blue Shield Plans are commemorating 25 years as a national prepayment system.

The plans had a total membership of about 1 million in 1946. During last year, membership increased by more than 2.4 million. Another 13.4 million are covered under government programs for which Blue Shield Plans are fiscal agents, bringing to almost 79 million the number of persons served by the Blues.

EENT Seminar in Miami Beach

The 26th Annual Florida Midwinter Seminar in Ophthalmology and Otolaryngology will be held Jan. 30-Feb. 5, 1972, at the Hotel Americana in Miami Beach.

Lectures in ophthalmology will be presented the first three days of the program. The remaining three days will be devoted to otolaryngology subjects.

The program is presented in cooperation with the University of Florida College of Medicine and the University of Miami School of Medicine.

There will be a registration fee of $75. Application and other information may be obtained by contacting Kenneth Whitmer, M.D., 550 Brickell Avenue, Miami, Fla.

Dr. Talbott Joins University of Miami Staff

John H. Talbott, M.D., Editor Emeritus of the Journal of the American Medical Association, has been named Clinical Professor of Medicine at the University of Miami School of Medicine.

Dr. Talbott edited JAMA for 10 years.

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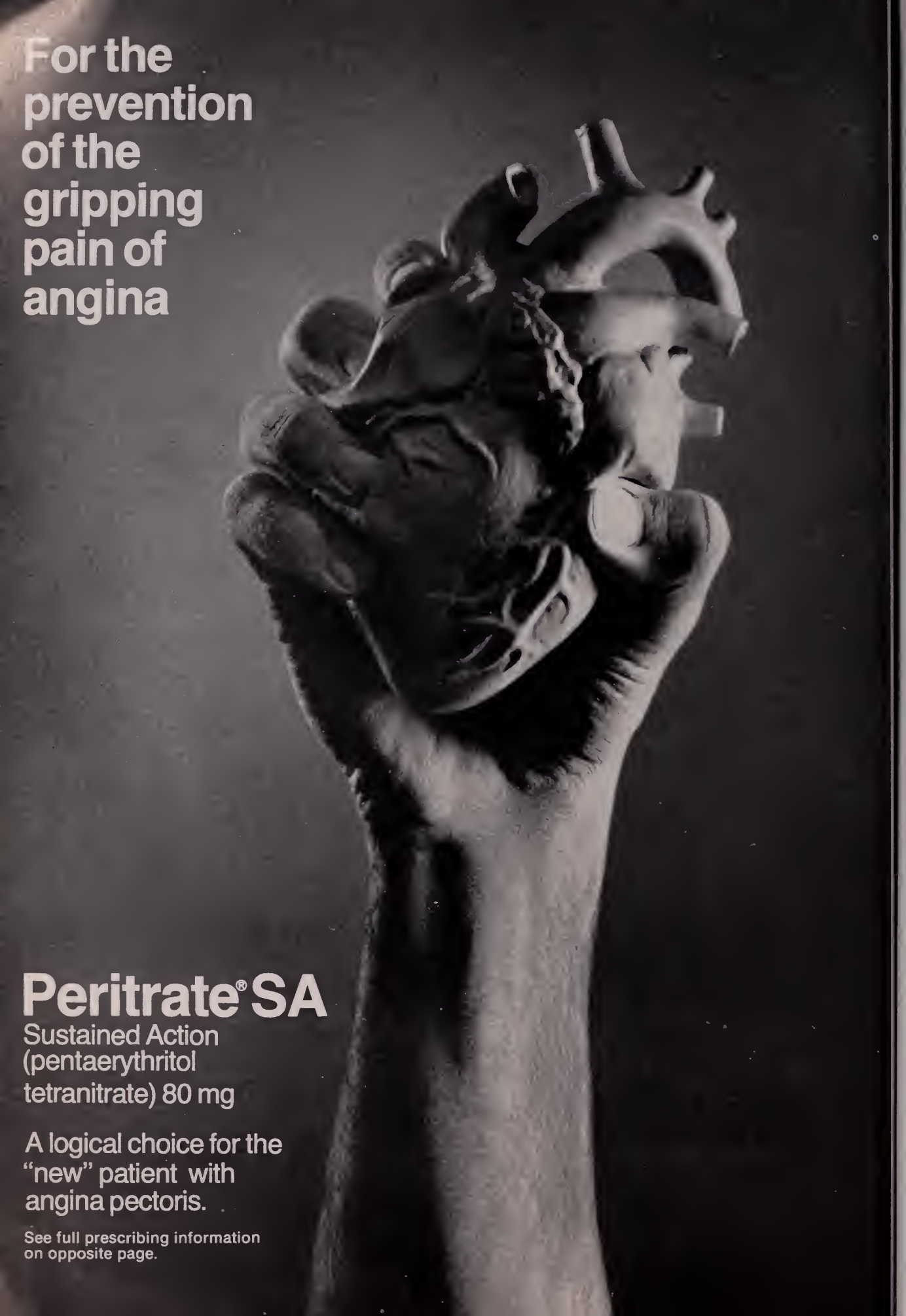


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Precautions: Should be used with caution in patients who have glaucoma. Tolerance to this drug, and cross-tolerance to other nitrites and nitrates may occur.
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MEETINGS

Approved by FMA
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DECEMBER

2- 5 Ninth Annual Cardiology Seminar, Princess Hotel, Acapulco, Mexico. For information: Henry J. L. Marriott, M.D., St. Anthony's Hospital, St. Petersburg 33733.

8-10 Clinical Nephrology and Heart Disease Seminar, Eden Roc Hotel, Miami Beach. For information: Mrs. Gwen Hendel, Mt. Sinai Hospital, 4300 Alton Rd., Miami Beach 33140.

13-18 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

JANUARY

3- 8 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

4- 9 Special Procedures: Radiological Interpretations, Playboy Plaza, Miami Beach. For information: Mrs. Gwen Hendel, Mt. Sinai Hospital, 4300 Alton Rd., Miami Beach 33140.

6- 9 Ninth Annual Postgraduate Seminar in Anesthesiology, Playboy Plaza Hotel, Miami Beach. For information: Jordan Katz, M.D., Box 875, Biscayne Annex, Miami 33152.

10-11 Infectious Disease 1972: Treatment and Prevention, Eden Roc Hotel, Miami Beach. For information: Frances Richardson, Mt. Sinai Hospital, 4300 Alton Rd., Miami Beach 33140.

24-29 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

MARCH

4 Sixteenth Watson Clinic Annual Seminar, Watson Clinic, Lakeland. For information: Brunildo A. Herrero, M.D., Watson Clinic, Lakeland, Florida 33802.

15-18 Fourth Teaching Conference in Clinical Cardiology, Sheraton-Four Ambassadors Hotel, Miami. For information: Michael S. Gordon, M.D., Box 875, Biscayne Annex, Miami 33152.

15-19 Fourth Annual Nuclear Medicine Seminar, Playboy Plaza Hotel, Miami Beach. For information: Susan R. Cohen, B.A., Div. of Nuclear Medicine, Box 875, Biscayne Annex, Miami 33152.

National and Regional
Meetings Held in Florida

JANUARY

17-19 American College of Surgeons, Sectional Meeting. Sheraton-Four Ambassadors Hotel, Miami. Info. Communications Division, 55 E. Erie St., Chicago 60611.

APRIL

18-20 American Academy of Facial Plastic and Reconstructive Surgery, Hollywood Beach Hotel, Hollywood Beach. Sec.: Carl N. Patterson, M.D., 1110 W. Main St., Durham, North Carolina 27701.

18-19 American Broncho-Esophagological Association, Hollywood Beach Hotel, Hollywood. Walter H. Maloney, M.D., 2065 Adelbert Rd., Cleveland 44106.

Florida State Board of Medical Examiners:
January 16-18, 1972, Tampa

For information: Mrs. Marjoriann Keebler, Assistant Director, Florida State Board of Medical Examiners, 2717 E. Oakland Pk. Blvd., Fort Lauderdale, Fla. 33306.

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Miscellaneous

PHYSICIANS WANTED IN FLORIDA, DIVISION OF MENTAL HEALTH: Positions are available for qualified physicians (Florida license not required). General practitioners, internists, surgeons, psychiatrists—in the hospital facilities of the Division of Mental Health. Interest, accompanied by a curriculum vitae, should be directed to E. Arthur Larson, M.D., Deputy Director for Hospitals and Institutes, Division of Mental Health, 200 East Gaines Street, Room 425, Tallahassee, Florida 32304.

WANTED IMMEDIATELY: Private emergency room physician. Corporate group needs fifth physician in teaching hospital, Orlando, Florida. Prefer GP. Florida license required. Contact Bruce S. Webster, M.D. (305) 647-5728 or Robert Gay, M.D. (305) 422-0159.

PHYSICIANS NEEDED: Tallahassee, Leon County, Northwest. General practitioners, internists and pediatricians in particular. Inquiries regarding practice in this community can be forwarded to J. Orson Smith Jr., M.D., Chairman, Physician Procurement Committee, 1433 Miccosukee Rd., Tallahassee, Fla. 32303. Phone (904) 877-1145.

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THE JOURNAL OF THE Florida Medical Association

THE FLORIDA MEDICAL ASSOCIATION, INC. 1874

DECEMBER, 1971 • VOLUME 58 • NUMBER 12



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Which is Peace
The gladness of Christmas
Which is Hope
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Which is Love.

Patients fell asleep quickl

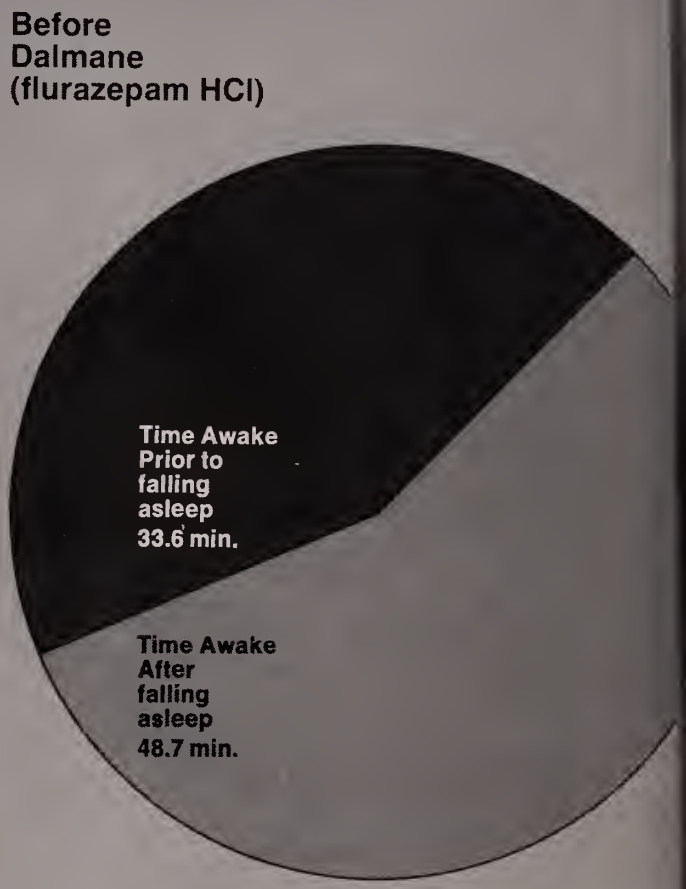
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These studies utilized identical protocols and included eight insomniac patients. Sleep laboratory measurements in a limited number of patients are derived from all-night electro-encephalographic, electro-oculographic and electromyographic tracings. Unlike traditional methods of evaluation, they are quantitative, reproducible and projectable to large numbers of subjects.

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Dalmane is also relatively safe, as reported in clinical studies. Instances of morning "hang-over" have been relatively infrequent; paradoxical reactions (excitement) and hypotension have been rare. Dizziness, drowsiness, lightheadedness and the like were the side effects noted most frequently, particularly in the elderly or debilitated. (An initial dose of Dalmane 15 mg should be prescribed for these patients.)

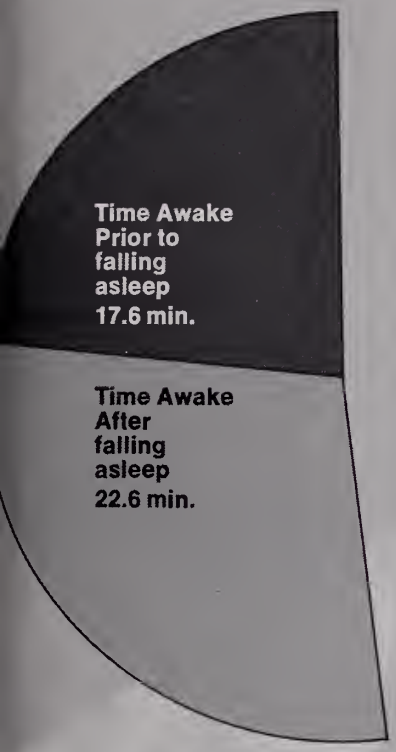


References: 1. Frost, J. D., Jr.: "A System for Automatically Analyzing Sleep," Scientific Exhibit presented at Clinical Convention, A.M.A., Boston, Nov. 29-Dec. 2, 1970, and Aerospace M.A., Houston, April 26-29, 1971.
2. Data on file, Medical Department, Hoffmann-La Roche Inc., Nutley, N.J.

Measurements of sleep in the sleep laboratory are obtained with electroencephalographic, electro-oculographic and electromyographic recordings.

nd slept through the night

n
almane
lurazepam HCl)



sleep laboratory measurements in cited studies

er	Before Dalmane	On Dalmane
quired to fall asleep	33.6 min.	17.6 min.
ne after onset of sleep	48.7 min.	22 6 min.
of wakeful periods after of sleep	12.2	8.4
eep time	420.0 min.	447.5 min.
eep percent	88.6	94.5

ical effectiveness as
ven in the sleep laboratory

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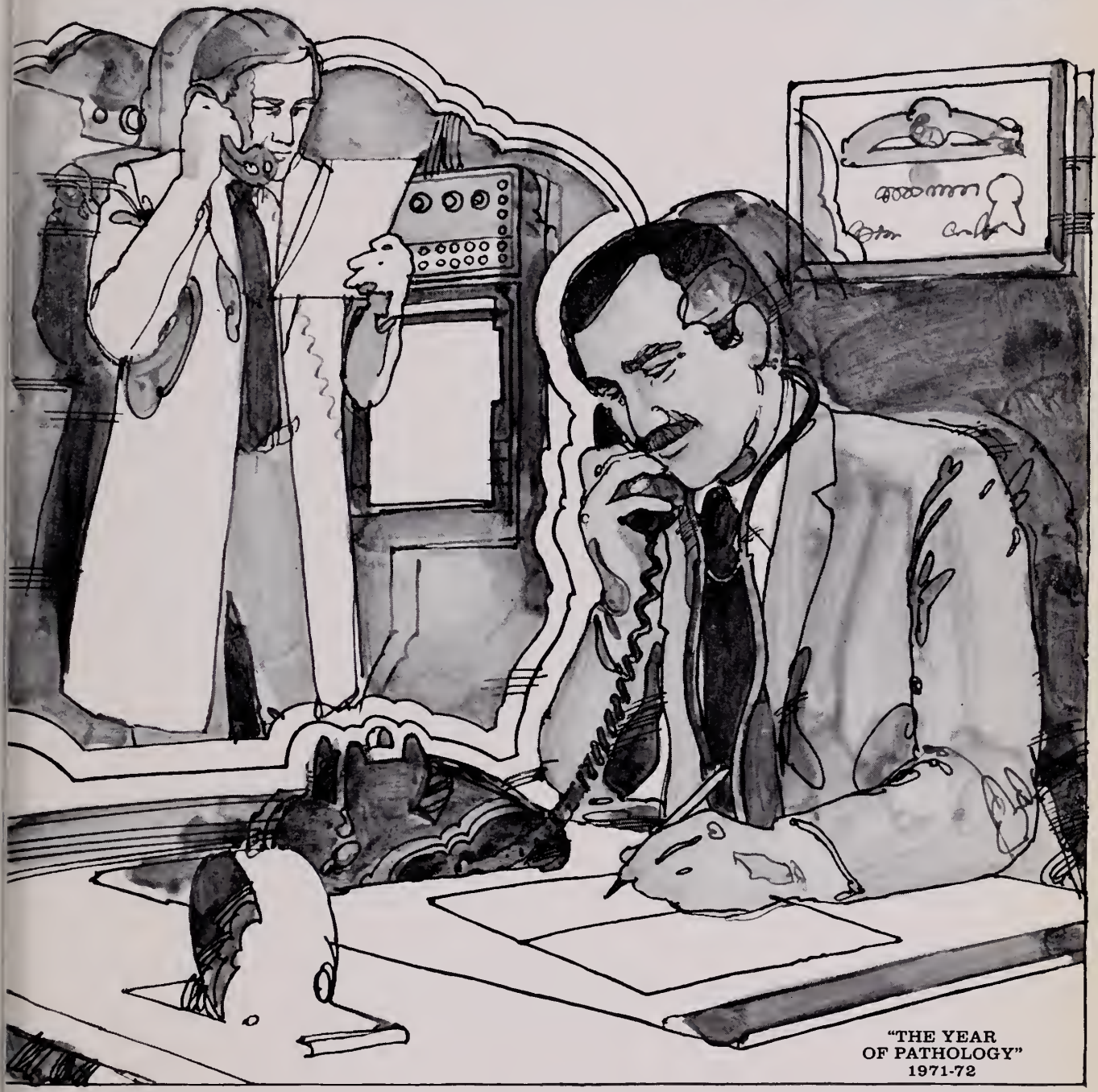
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1. Latiolais, C. J., and Berry, C. C.: Misuse of Prescription Medications by Outpatients, *Drug Intelligence & Clin. Pharm.* 3:270-7, 1969

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3. American Druggist BLUEBOOK, March, 1971.

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See next pages for prescribing information.







PATIENTS CAN BE SUCCESSFULLY MAINTAINED ON A DRUG CONTAINING THYROXINE ALONE.

Thyroxine (T_4) is, as you know, the major circulating hormone produced by the thyroid gland. T_3 is also produced, in smaller amounts, and is active at the cellular level. For years it has been a working hypothesis among endocrinologists that T_4 is converted by the body to T_3. In 1970 this process, called "deiodination," was demonstrated by Sterling and Braverman[2]. T_4 does convert to T_3, though the precise quantities are still being studied.

The conversion has been clinically demonstrated during the administration of T_4 to athyrotic patients. Their thyroid status is normalized on SYNTHROID alone, yet the presence of T_3 in these patients has been clearly shown.

CONSIDERATE LONG-TERM THERAPY FOR THE PATIENT.

Predictable patient response, of course, is more important than price. You do get complete clinical response with the single-entity synthetic, SYNTHROID. And, at a reasonable cost to the patient. In some short term situations, T_3 drugs can be useful but, in long term therapy, the smooth road provided by SYNTHROID may be the better route.

SYNTHROID, with its smooth road to complete thyroid replacement therapy, has been selected for more patients in the United States and Canada than any other brand of thyroid medication.

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AS WITH ANY THYROID PREPARATION, CAUTIOUS OBSERVATION OF THE PATIENT DURING THE BEGINNING OF THERAPY WILL ALERT THE PHYSICIAN TO ANY UNTOWARD EFFECTS.

Side effects, when they do occur, are related to excessive dosage. Caution should be exercised in administering the drug to patients with cardiovascular disease. Read the accompanying prescribing information for additional data or write Flint Laboratories.

Choose the Smooth Road ...to thyroid replacement therapy



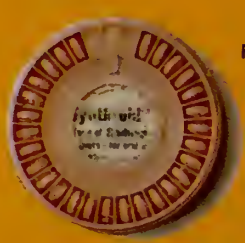
0.05 mg.



0.1 mg.



0.15 mg.



0.2 mg.

FREE TAB-MINDER medication dispensers—color-coded in 4 dosage strengths—get patients off to a good start and encourage regular habit patterns. Contain free 4-weeks' supply of SYNTHROID, and are reusable for maintenance dosage.

APPROXIMATE DOSAGE EQUIVALENTS*

			Animal Gland		
CYTOMEL (Sodium liothyronine) Synthetic T_3	EUTHROID** (Liotrix) Synthetic T_3-T_4	THYROLAR*** (Liotrix) Synthetic T_3-T_4	Desiccated (Thyroid, USP) Cow, sheep or hog thyroid	PROLOID (thyroglobulin) Frozen hog thyroid	SYNTHROID (Sodium levothyroxine) Synthetic T_4
Unscored 5 mcg.	N.A.	N.A.	unscored ¼ gr.	¼ gr.	0.025 mg.
N.A.	½	½	unscored ½ gr.	½ gr.	0.05 mg.
25 mcg.	1	1	unscored 1 gr.	1 gr.	0.1 mg.
N.A.	N.A.	N.A.	N.A.	1½ gr.	0.15 mg.
50 mcg.	2	2	unscored 2 gr.	2 gr.	0.2 mg.
N.A.	3	3	unscored 3 gr.	3 gr.	0.3 mg.
N.A.	N.A.	N.A.	unscored 5 gr.	5 gr.	0.5 mg.
N.A.	N.A.	N.A.	N.A.	N.A.	Injectable 500 mcg.

N.A. = Not Available Commercially

*Equivalents shown are chemical, and do not take into consideration individual patient variables. Clinical effect is approximate and should be monitored when converting a patient to SYNTHROID. This is particularly important in patients previously on desiccated thyroid. In these patients, lower doses of SYNTHROID may produce the same metabolic effect.

**Euthroid (#1 tablet) contains 60 mcg. of T_4 and 15 mcg. of T_3.

***Thyrolar (#1 tablet) contains 50 mcg. of T_4 and 12.5 mcg. of T_3.

Synthroid®
(sodium levothyroxine)



Indications: SYNTHROID (sodium levothyroxine) is specific replacement therapy for diminished c absent thyroid function resulting from primary or secondary atrophy of the gland, congenital de fect, surgery, excessive radiation, or antithyroid drugs. Indications for SYNTHROID (sodium levo thyroxine) **Tablets** include myxedema, hypothyroidism without myxedema, hypothyroidism in preg nancy, pediatric and geriatric hypothyroidism, hypopituitary hypothyroidism, simple (nontoxic goiter, and reproductive disorders associated with hypothyroidism. SYNTHROID (sodium levo thyroxine) **for Injection** is indicated for intravenous use in myxedematous coma and other thyroi dysfunctions where rapid replacement of the hormone is required. The injection is also indicate for intramuscular use in cases where the oral route is suspect or contraindicated due to existin conditions or to absorption defects, and when a rapid onset of effect is not desired.

Precautions: As with other thyroid preparations, an overdosage may cause diarrhea or cramps nervousness, tremors, tachycardia, vomiting and continued weight loss. These effects may begi after four or five days or may not become apparent for one to three weeks. Patients receiving th drug should be observed closely for signs of thyrotoxicosis. If indications of overdosage appea discontinue medication for 2-6 days, then resume at a lower dosage level. In patients with diabete mellitus, careful observations should be made for changes in insulin or other antidiabetic dru dosage requirements. If hypothyroidism is accompanied by adrenal insufficiency, as Addison's Di ease (chronic subcortical insufficiency), Simmonds's Disease (panhypopituitarism) or Cushing syndrome (hyperadrenalism), these dysfunctions must be corrected prior to and during SYNTHROI (sodium levothyroxine) administration. The drug should be administered with caution to patien with cardiovascular disease; development of chest pains or other aggravations of cardiovascul disease requires a reduction in dosage.

Contraindications: Thyrotoxicosis, acute myocardial infarction. **Side effects:** The effects of SYI THROID (sodium levothyroxine) therapy are slow in being manifested. Side effects, when they c occur, are secondary to increased rates of body metabolism; sweating, heart palpitations with without pain, leg cramps, and weight loss. Diarrhea, vomiting, and nervousness have also bee observed. Myxedematous patients with heart disease have died from abrupt increases in dosage thyroid drugs. Careful observation of the patient during the beginning of any thyroid therapy w alert the physician to any untoward effects.

In most cases with side effects, a reduction of dosage followed by a more gradual adjustme upward will result in a more accurate indication of the patient's dosage requirements without tl appearance of side effects.

Dosage and Administration: The activity of a 0.1 mg. SYNTHROID (sodium levothyroxine) TABL is equivalent to approximately one grain thyroid, U.S.P. Administer SYNTHROID tablets as a sing daily dose, preferably after breakfast. In hypothyroidism without myxedema, the usual initial ad dose is 0.1 mg. daily, and may be increased by 0.1 mg. every 30 days until proper metabolic b ance is attained. Clinical evaluation should be made monthly and PBI measurements about eve 90 days. Final maintenance dosage will usually range from 0.2-0.4 mg. daily. In adult myxedem starting dose should be 0.025 mg. daily. The dose may be increased to 0.05 mg. after two wee and to 0.1 mg. at the end of a second two weeks. The daily dose may be further increased at tw month intervals by 0.1 mg. until the optimum maintenance dose is reached (0.1-1.0 mg. daily).

Supplied: Tablets: 0.025 mg., 0.05 mg., 0.1 mg., 0.15 mg., 0.2 mg., 0.3 mg., 0.5 mg., scored a color-coded, in bottles of 100, 500, and 1000. Injection: 500 mcg. lyophilized active ingredie and 10 mg. of Mannitol, N.F., in 10 ml. single-dose vial, with 5 ml. vial of Sodium Chloride Inje tion, U.S.P., as a diluent. SYNTHROID (sodium levothyroxine) **for Injection** may be administer intravenously utilizing 200-400 mcg. of a solution containing 100 mcg. per ml. If significant i provement is not shown the following day, a repeat injection of 100-200 mcg. may be given.

FLINT LABORATORIE
DIVISION OF TRAVENOL LABORATORIES, INC
Morton Grove, Illinois 60053

THE FACTS ARE CLEAR AND HERE IS OUR OFFER.

Synthetic thyroid drugs are an improvement over animal gland products. Patients, even athyrotic ones, can be completely maintained on SYNTHROID (T_4) alone. Thyroid function tests are easy to interpret since they are *predictably* elevated when the patient adheres to SYNTHROID. Of all synthetic thyroid drugs, SYNTHROID is the most economical to the patient.

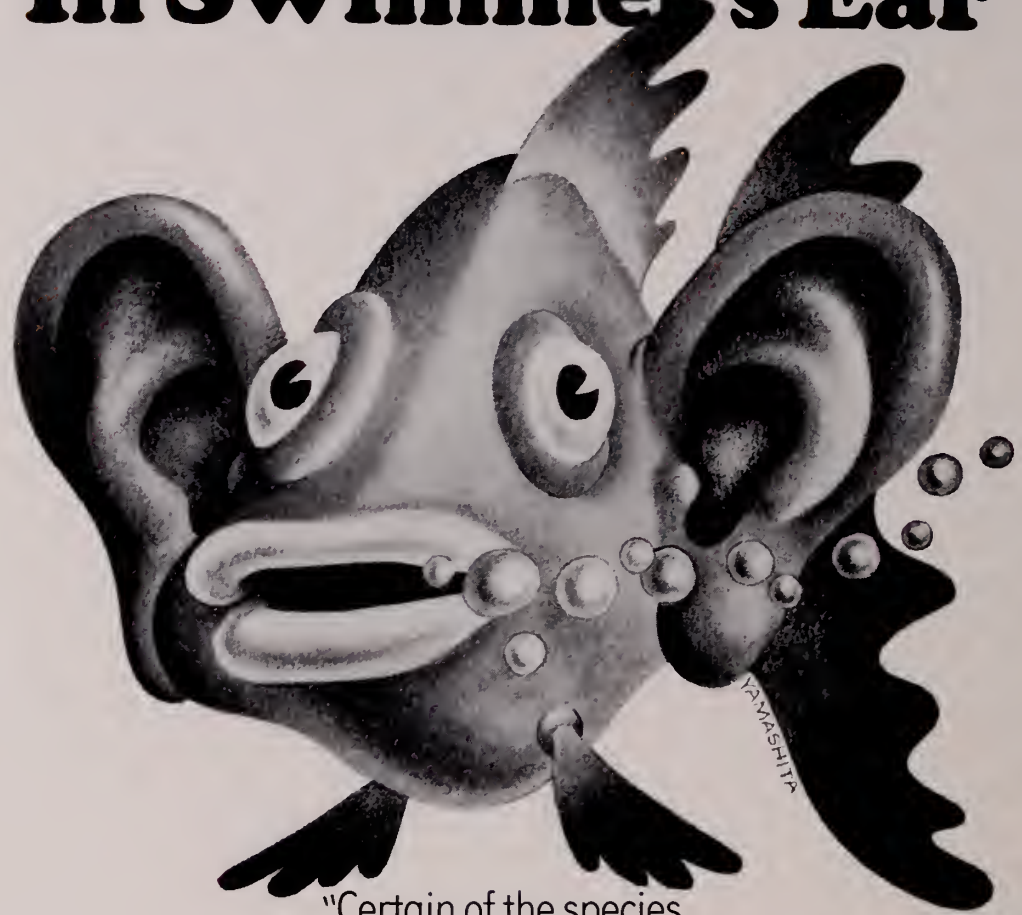
OFFER: A
Free TAB-MINDER medication dispensers to start or convert all your hypothyroid patients to SYNTHROID. Free information to physicians on role of thyroid function tests in a new booklet titled: "Guideposts to Thyroid Therapy." Ask us.

Name

Address

City State Zip

In Swimmer's Ear



"Certain of the species
are apt to encounter aural
difficulties after engaging in various
natatory pursuits."

Furacin® Otic

(nitrofurazone) antibacterial/anesthetic/antifungal

Formula: Contains (w/w) 0.2% FURACIN, brand of nitrofurazone, 0.375% Micafur®, brand of nifuraxime, and 2% diperadan hydrochloride dissolved in water-soluble, nondrying, hygroscopic polyethylene glycol.

Indications: For treatment of bacterial otitis externa, bacterial otitis media and otomycosis. In otitis media, this preparation is not effective if the tympanic membrane is intact.

FURACIN (nitrofurazone) and Micafur (nifuraxime) are active against a variety of gram-positive and gram-negative organisms. Activity versus Pseudomonas sp. is limited to certain strains. Micafur (nifuroxime) is active against Candida (Manilia) albicans.

Precautions: Sensitization may occur with prolonged use and is more likely to develop in eczematous otitis externa. To minimize such reactions (a) limit application to a week or less, and (b) avoid use of excessive amounts which may run down the face.

This preparation is not indicated for use in treatment of cholesteatoma, where surgical intervention is necessary.

Supplied: Bottle of 15 cc. with dropper.

®Originators and Developers of The Nitrofurans
EATON LABORATORIES
Division of The Norwich Pharmacal Company
NORWICH, NEW YORK 13815

President's Page



Working Together

One of the most heartening and rewarding aspects of serving as President of the Florida Medical Association has been witnessing the great esprit de corps of the many members who serve on the more than 90 committees of the FMA. They work endless hours, usually on the weekends, usually without compensation, and during those hours when their time is actually not for sale and cannot be bought. They are away from their families and loved ones and sometimes their tasks are quite dull and routine and are not particularly rewarding to them personally.

When I review and read the reports of these many committees, I am often amazed and gratified at the results of their endeavors. I have known for some time that the physician in Florida is more dedicated in his efforts for organized medicine than is found in other parts of the country. It is manifested by the great deal of work which comes from our various committees.

I recently attended the meeting of the Board of Directors of the Woman's Auxiliary and I was impressed also with the tremendous amount of work they are doing. I feel we justifiably can be quite proud of our wives. It is important that all of these workers be given recognition, because in recent years our profession has been subjected to a rising chorus of criticism from virtually all elements of society. It is not medicine's achievements that are under fire, since it is almost universally agreed that the state of the art is higher here than anywhere else in the world. What is being questioned is the discrepancy between the potential that is so impressive and the quality of usual or average health services. I admit that our attempt at justification for some of these criticisms has been futile, and has been more in the nature of a reflex response to a noxious stimulus, than a systematic, rational approach to a stated goal. Be that as it may, I feel that the ultimate answers and solutions for our problems will come through the efforts of organized medicine. I also feel that this is the time that we should work together to solve our problems.

My wife and I would like to extend the Season's Greetings to all. I sincerely hope that 1972 shall be even better than 1971.

J. K. Hurst M.D.

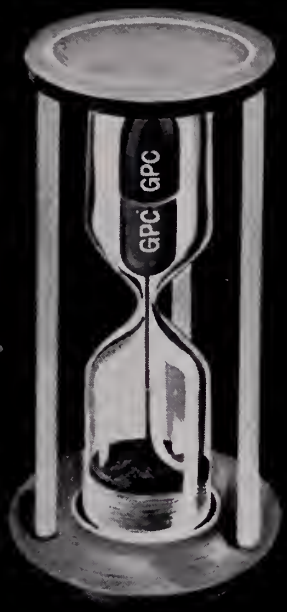
TO OUR ADVERTISERS

As we approach the end of another year, it seems timely and appropriate to express our gratitude to our advertisers, without whose support publication of *The Journal* would not be possible.

We who work with *The Journal* every day are proud of our product and the important role that our advertisers play in it. Your continued support indicates that you share with us the belief that *The Journal of the Florida Medical Association* is one of the most effective communicative links between you and approximately 8,000 physicians in Florida.

Florida is growing; the Florida Medical Association is growing; and *The Journal* will grow with them. The effectiveness of your advertising depends on readership interest for which we also are working to provide avenues of communication, to inform the doctors of Florida on local problems in the private practice of medicine, and outline organized medicine's leadership in attempting to solve these problems.

Thank you, Mr. Advertiser, for the privilege of having served you. We look forward to a long continuation of this alliance.



SUSTAINED RELEASE VITAMIN C

CEVI-BID



THE 500 mg. CAPSULE

CEVI-BID releases Vitamin C through its unique micro-dialysis process at a continuous, smooth, predictable rate for a 24 hour period on b.i.d. dosage—dependent only on the presence of fluid in the g. i. tract, and independent of pH or other variables.

CEVI-BID avoids the "peak and valley" blood levels usually obtained from t.i.d. dosage of Vitamin C tablets.

Prescribe CEVI-BID, the 500 mg. sustained-release Vitamin C capsule whenever Vitamin C is indicated.

Samples on Request

GERIATRIC PHARMACEUTICAL CORP.

397 Jericho Turnpike, Floral Park, N.Y. 11001

Pioneers in Geriatric Research

DEVELOPERS AND SUPPLIERS OF GER-O-FOAM • GAYSAL • TESTAND-B

NOW! PRICE CUT 50%

FOR EVEN GREATER PATIENT ECONOMY...

Versapen®-K

POTASSIUM HETACILLIN

THE AMPICILLIN DERIVATIVE

BRISTOL

BRISTOL LABORATORIES
Division of Bristol-Myers Company
Syracuse, New York 13201



Triaminic®

phenylpropanolamine hydrochloride, pyrilamine maleate, pheniramine maleate

"the Sunshine Tablet"

Formula: Each timed-release tablet contains phenylpropanolamine hydrochloride, 50 mg.; pyrilamine maleate, 25 mg.; pheniramine maleate, 25 mg. **Indications:** Relief from such symptoms as nasal congestion, profuse nasal discharge and postnasal drip associated with colds, nasal allergies, sinusitis and rhinitis. **Precautions:** Patients should not drive a car or operate dangerous machinery if drowsiness occurs. Use with caution in the presence of hypertension, hyperthyroidism, cardiovascular disease, or diabetes. **Side Effects:** Occasional drowsiness, blurred vision, cardiac palpitations, flushing, dizziness, nervousness or gastrointestinal upsets. **Dosage:** Adults—one tablet swallowed whole, in morning, midafternoon and before retiring. **Availability:** In bottles of 100, 250.

Rx ONLY

Dorsey Laboratories, Lincoln, Nebraska, 68501

in cardiac edema

Dyazide®

Trademark

Each capsule contains 50 mg. of Dyrenium® (brand of triamterene) and 25 mg. of hydrochlorothiazide.

gets the water out

spares the potassium

Before prescribing, see complete prescribing information in SK&F literature or *PDR*.

Indications: Edema associated with congestive heart failure, cirrhosis of the liver, the nephrotic syndrome, late pregnancy; also steroid-induced and idiopathic edema, and edema resistant to other diuretic therapy. 'Dyazide' is also indicated in the treatment of mild to moderate hypertension.

Contraindications: Pre-existing elevated serum potassium. Hypersensitivity to either component. Continued use in progressive renal or hepatic dysfunction or developing hyperkalemia.

Warnings: **Do not use dietary potassium supplements or potassium salts unless hypokalemia develops or dietary potassium intake is markedly impaired.** Enteric-coated potassium salts may cause small bowel stenosis with or without ulceration. Hyperkalemia (>5.4 mEq/L) has been reported in 4% of patients under 60 years, in 12% of patients over 60 years, and in less than 8% of patients overall. Rarely, cases have been associated with cardiac irregularities. Accordingly, **check serum potassium during therapy, particularly in patients with suspected or confirmed renal insufficiency (e.g., certain elderly or diabetics). If hyperkalemia develops, substitute a thiazide alone. If spironolactone is used concomitantly with 'Dyazide', check serum potassium frequently**—they can both cause potassium retention and sometimes hyperkalemia. Two deaths have been reported in patients on such combined therapy (in one, recommended dosage was exceeded; in the other, serum electrolytes were not properly monitored). Observe regularly for possible blood dyscrasias, liver damage or other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving Dyrenium (triamterene, SK&F). Rarely, leukopenia, thrombocytopenia, agranulocytosis, and aplastic anemia have been reported with the thiazides. Watch for signs of impending coma in acutely ill cirrhotics. Thiazides are reported to cross the placental barrier and appear in breast milk. This may result in fetal or neonatal hyperbilirubinemia, thrombocytopenia, altered carbohydrate metabolism and possibly other adverse reactions that have occurred in the adult. When used during pregnancy or in women who might bear children, weigh potential benefits against possible hazards to fetus.

Precautions: Do periodic serum electrolyte and BUN determinations. Do periodic hematologic studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in postsympathectomy patients. The following may occur: hyperuricemia and gout, reversible nitrogen retention, decreasing alkali reserve with possible metabolic acidosis, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), digitalis intoxication (in hypokalemia). Use cautiously in surgical patients. Concomitant use with antihypertensive agents may result in an additive hypotensive effect.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis; rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting (may indicate electrolyte imbalance), diarrhea, constipation, other gastrointestinal disturbances. Rarely, necrotizing vasculitis, paresthesias, icterus, pancreatitis, and xanthopsia have occurred with thiazides alone.

Supplied: Bottles of 100 capsules.

SK&F

SK&F Co., Carolina, P.R. 00630
a subsidiary of Smith Kline & French Laboratories

DZ-108

Schering

for grown-up colds

...that call for strong medicine
...the kinds that potent DRIXORAL is reserved for.
(Noses under 12 years of age
aren't eligible.) For the adult case of
nasal/sinus congestion:
a tablet for the day keeps congestion away,
a tablet at night, sleeper's delight.

Sustained-Action Tablets

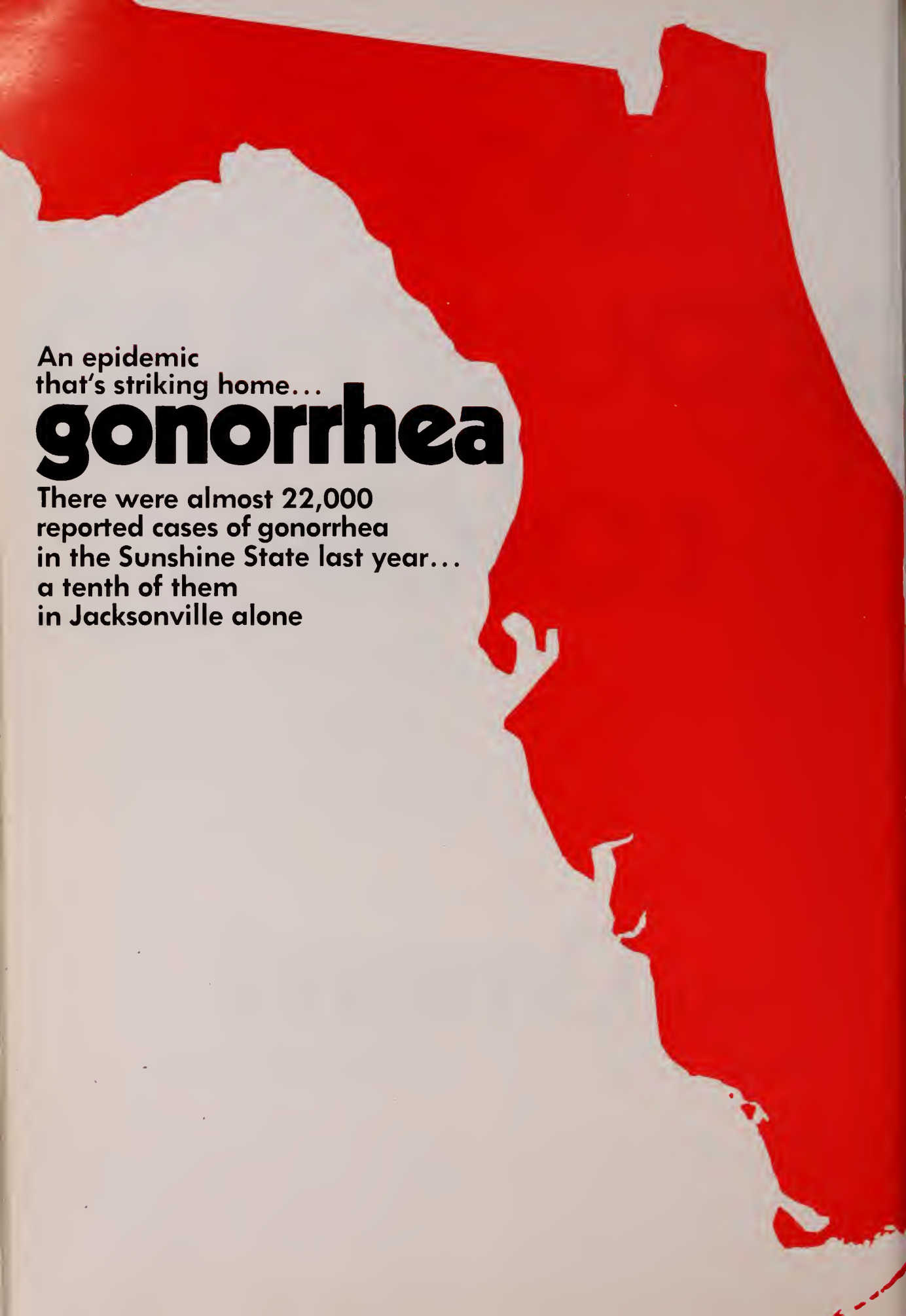
b.i.d. Drixoral®

brand of dexbrompheniramine maleate 6 mg. and d-isoephedrine sulfate 120 mg.

The round-the-clock oral decongestant

cal Considerations: Indicatians: DRIXORAL is indicated far round-the- relief of symptoms of upper respiratory mucosal congestion in seasanal perennial nasal allergies, acute rhinitis and rhinosinusitis, and eustachian blockage.
raindicatians: DRIXORAL shauld nat be given to children under 12 years e. DRIXORAL should not be administered ta pregnant women or nursing ers until the safety of this preparation far use during gestation and lacta- s established. The preparation is cantraindicated also in patients with e hypertensian and caranary artery disease. **Warnings:** As in the case of preparatians cantaining central nervous system acting drugs, patients ving DRIXORAL shauld be cautioned abaut possible additive effects with ol and other central nervous system depressants (hypnotics, sedatives, ullizers). For the same reason they should be cautioned against hazardous patians requiring complete mental alertness such as operating machinery ar driving a motor vehicle. **Precautions:** Isoephedrine-containing preparations shauld be used with caution in the presence of: hypertension; coronary artery disease; any other cardiavascular disease; glaucoma; prostatic hypertrophy; hyperthyraidism; diabetes. **Adverse Reactians:** The physician should be alert ta the passibility of all possible adverse reactians which have been observed with sympathomimetic and antihistaminic drugs. These include: drowsiness; confusian; restlessness; nausea; vamiting; drug rash; vertigo; palpitation; anorexia; dizziness; dysuria due to vesicle sphincter spasm; headache; insamnia; anxiety; tensian; weakness; tachycardia; angina; sweating; blood pressure elevation; mydriasis; gastric distress; abdominal cramps; central nervaus system stimulatian; circulatary callapse. **Far mare complete details, cansult package insert ar Schering literature available from your Schering Representative or Medical Services Department, Schering Corporatian, Union, New Jersey 07083.**

SCH-2554



An epidemic
that's striking home...

gonorrhea

There were almost 22,000
reported cases of gonorrhea
in the Sunshine State last year...
a tenth of them
in Jacksonville alone

In Florida...and everywhere else...
a new alternative

NEW Trobicin®

SPECTINOMYCIN DIHYDROCHLORIDE PENTAHYDRATE, UPJOHN

single-dose treatment for intramuscular use only

a chemically distinct antibiotic indicated specifically for treatment of acute gonorrhea:
in the male–acute urethritis and proctitis
in the female–acute cervicitis and proctitis
when due to susceptible strains of *N. gonorrhoeae*

High cure rate:*96% of 571 males, 95% of 294 females
(Dosages, sites of infection, and criteria for diagnosis and cure are defined on page 3 of advertisement)

Assurance of a single-dose, physician-controlled treatment schedule

No allergic reactions occurred in patients with an alleged history of penicillin sensitivity when treated with Trobicin, although penicillin antibody studies were not performed

Active against most strains of Neisseria gonorrhoeae *in vitro*
(M.I.C. 7.5-20 mcg/ml)

A single two-gram injection produces peak serum concentrations averaging about 100 mcg/ml in one hour
(average serum concentrations of 15 mcg/ml present 8 hours after dosing)

NOTE: Antibiotics used in high doses for short periods of time to treat gonorrhea may mask or delay the symptoms of incubating syphilis. Since the treatment of syphilis demands prolonged therapy with any effective antibiotic, and since Trobicin is not indicated in the treatment of syphilis, patients being treated for gonorrhea should be closely observed clinically. Monthly serological follow-up for at least 3 months should be instituted if the diagnosis of syphilis is suspected. Trobicin is contraindicated in patients previously found hypersensitive to it.

For full prescribing information, including contraindications, warnings and precautions, please see last page of this advertisement.

*Data compiled from reports of 14 investigators.

Upjohn The Upjohn Company, Kalamazoo, Michigan 49001

Trobicin and the gonorrhea challenge

An accelerating epidemic— a decelerating susceptibility to penicillin

Gonorrhea is now the most prevalent reported communicable disease in the nation. The estimated number of new cases of gonorrhea in the United States exceeded two million for the first time in 1970. To compound the problems, strains of *N. gonorrhoeae* increasingly resistant to penicillin and other antibiotics are appearing throughout the country. Schedules of treatment which were effective only a few years ago now result in a significant percentage of treatment failure. *In vitro* studies have demonstrated that resistance of *N. gonorrhoeae* may also develop to Trobicin.

Thus, while aqueous Procaine Penicillin G remains the drug of choice for the majority of patients, the need for a non-penicillin, intramuscular antibiotic for acute gonorrhea in the male and female is abundantly clear. Such an antibiotic should be effective following a single intramuscular injection —and it should not demonstrate cross-resistance with penicillin

Trobicin—a new alternative specifically for the treatment of acute gonorrhea

Trobicin is indicated in the treatment of acute gonorrheal urethritis and proctitis in the male and acute gonorrheal cervicitis and proctitis in the female when due to susceptible strains of *N. gonorrhoeae*.

High cure rates: 96% of 571 males, 95% of 294 females

No allergic reactions occurred in patients with an alleged history of penicillin hypersensitivity when treated with Trobicin, although penicillin antibody studies were not performed.

Chemically distinct

Trobicin is structurally not related to any other antibiotic commonly used to treat gonorrhea.

The assurance of a single-dose, physician-controlled treatment schedule

Intramuscular injections should be made deep into the upper outer quadrant of the gluteal muscle.

Adult male: Single 2 gram dose I.M. in acute gonorrheal urethritis. Single 4 gram dose I.M. (should be divided between two gluteal injection sites) in gonorrheal proctitis and in patients being re-treated after failure of previous antibiotic therapy. In geographic areas where antibiotic resistance is known to be prevalent, initial treatment with 4 grams intramuscularly is preferred.

Adult female: Single 4 gram dose I.M. (should be divided between two gluteal injection sites) in acute gonorrheal cervicitis and proctitis.

Safety for use in pregnancy has not been established, nor has safety for use in infants and children.

Clinical Results with Single-Dose Treatment, Intramuscularly* (Data compiled from reports of 14 investigators**)

	Dosage	Number of Patients	Number Cured	Percent Cured
Adult Males: Gonorrheal urethritis	**2 grams** **4 grams**	**475** **96**	**457** **93**	**96%** **97%**
Adult Females: Gonorrheal cervicitis	**4 grams**	**294**	**280**	**95%**

Diagnosis was confirmed by cultural identification of *N. gonorrhoeae* on Thayer-Martin medium in all patients. Criteria for cure: negative culture after at least 2 days post-treatment in males and at least 7 days post-treatment in females. Any positive culture obtained post-treatment was considered evidence of treatment failure even though the follow-up period might have been less than the periods cited above under "criteria for cure" except when the investigator determined that reinfection through additional sexual contacts was likely. Such cases were judged to be reinfections rather than relapses or failures. These cases were regarded as non-evaluatable and were not included in the table above.

The following reactions were observed during the single-dose clinical trials: soreness at the injection site, urticaria, dizziness, nausea, chills, fever and insomnia.

During multiple-dose subchronic tolerance studies in normal human volunteers, the following were noted: a decrease in hemoglobin, hematocrit and creatinine clearance; elevation of alkaline phosphatase, BUN and SGPT. In single and multiple-dose studies in normal volunteers, a reduction in urine output was noted. Extensive renal function studies demonstrated no consistent changes indicative of renal toxicity.

*4-gram doses were injected in two gluteal sites.

**Medical Research Files, The Upjohn Company

a chemically distinct antibiotic indicated specifically for treatment of acute gonorrheal urethritis and proctitis in males and cervicitis and proctitis in females when due to susceptible strains of *N. gonorrhoeae*

new Trobicin®

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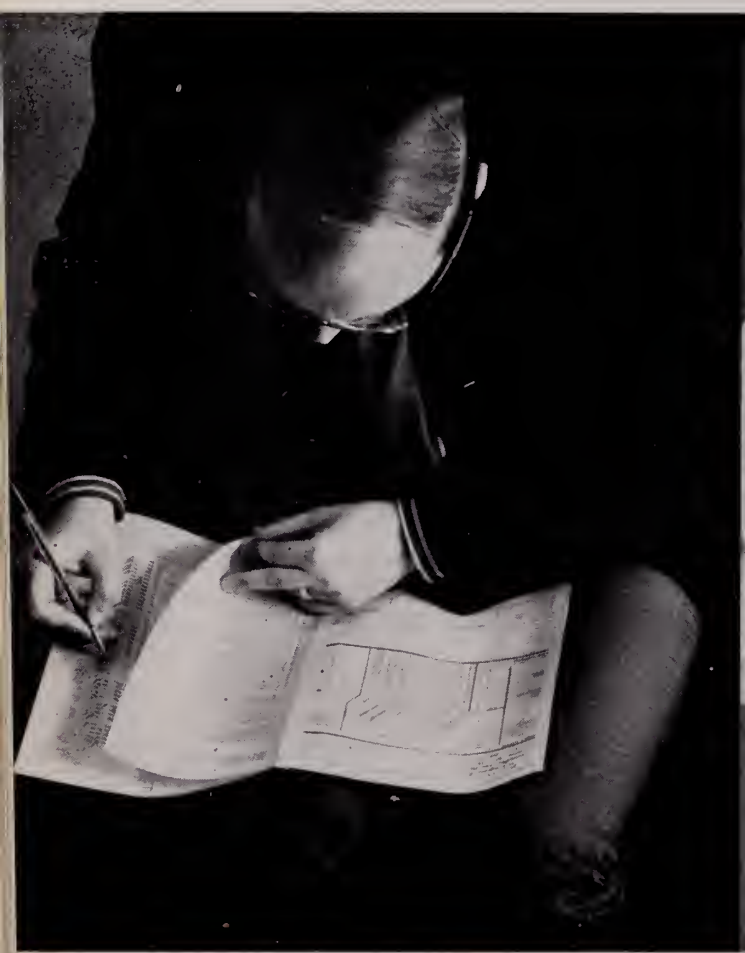
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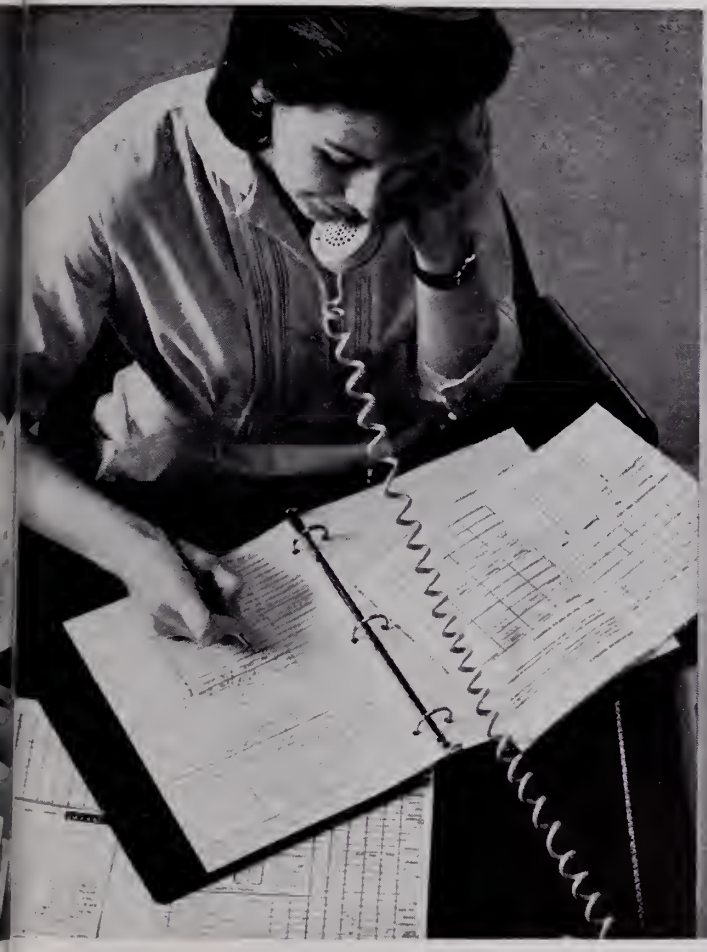
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The Intoeing Child

Treatment With a Simple Orthopedic Appliance

James C. Lanier, M.D.

Intoe gait, a common problem for the physician whose patients include children, often is not brought into focus until parents become concerned about clumsiness or an unattractive gait in their school age child. Before the parents express concern, the physician should observe his patient's gait; in fact before the child begins to walk he should detect the condition by previously schooling himself to the signs of its presence.

Normally the toes point straight ahead or slightly outward in the child learning to walk. If there is an intoeing gait, the toes will cross each other with each step, making the learning process more difficult. The child will fall more frequently, possibly causing painful injuries to the face, mouth and teeth. The importance of detecting the intoeing child, then, begins with the earliest examinations of the infant.

On walking, the intoeing or pigeon-toed child habitually points the toes toward the midline. This is a physical sign rather than a disease entity. It may be associated with flexible flat foot, hallux varus, metatarsus varus, internal tibial rotation, congenital contracture of the soft tissues medially, habitual internal rotation of the hip or increased anteversion of the femoral neck. Standard orthopedic and pediatric textbooks agree in description of the problem but vary widely in recommendations for treatment. [1-4] The condition is also described by excellent papers in the orthopedic literature.[5]

It is not the scope of this paper to present a review of the literature but to report, for the first time, clinical results in using the leather counter splint.*

Patients and Method

The children reported are from a two-man private pediatric practice over a two year period. The ages are shown in Table 1. The diagnosis of "intoe" was made by clinical observation. All patients were treated with a flexible leather counter splint described by Kingsbury.[6] The device was applied in this office. Follow-up observations were made until correction was satisfactory or until the patient discontinued treatment. The appliance is attached by templates through the lateral surface of the shoe counters to which a strap is fastened across the posterior surface (Fig. 1).

*Friedman Counter Splints, Inc., Box 212, West Chester, Pa. 19380.

TABLE 1.—AGE DISTRIBUTION OF CHILDREN AND RESULTS OF TREATMENT.

Age	1	1-3	4-6	7 & over	Total	%
No. of patients	62	36	30	14	142	100
Improved	52	22	21	8	103	73
Not Improved or Discontinued	2	10	8	0	20	14
No Follow-up	8	4	1	6	19	13

Metatarsus Varus

The metatarsus varus may be unilateral or bilateral and sometimes there is a tendency of the unaffected foot to be turned out. The deformity is present at birth and it is important that two variations be differentiated. If the forefoot can be pulled into normal alignment by passive motion then there is no congenital abnormality of the bones, muscles or tendon insertions and it is assumed that the baby's intoeing position is the result of fetal positioning. In the second type, the foot cannot be passively corrected and is a true deformity. In the very tight, fixed deformity, the correction is best achieved by casts. After correction is achieved one must be observant for a recurrence often takes place in spite of exercises and corrective appliances. On rare occasions a surgical procedure is necessary later in life to keep the foot in alignment. Casting is seldom done with older children. Various types of orthopedic appliances have been used to help these older children keep their feet straight. The positional rotation of the foot can sometimes be corrected by stretching and occasionally by use of a sand bag between the baby's feet as it sleeps on its abdomen. Sometimes manipulation is not sufficient and the intoeing is persistent. We have found it beneficial to put the baby's feet in straight-last shoes or swing-out shoes and attach the shoes together at the heel with the flexible leather counter splint.

Metatarsus varus is by far the most common rotational foot deformity seen in infants and yet, because the child is not walking, it produces very



Fig. 2.—Infant in belly-sleeping position with feet internally rotated before treatment.



Fig. 1.—The flexible leather counter splint set at 45° of external rotation attached to a normal walking shoe. Splint may be removed from shoe for daytime activity.



Fig. 3.—After one month of treatment using the flexible leather counter splint. The same infant as shown in Figure 2, displays external rotation.

little concern in the parents. It is, therefore, the responsiblity of the physician to be alert to this condition and be ready to prescribe treatment early in life. One can rotate these feet into a normal position with the use of the flexible leather counter splint within the matter of a few weeks. Later in life it takes months or even years to produce the same therapeutic benefit. Figure 2 shows an infant in a prone sleeping position with the feet in an inward rotation position. Figure 3, the same infant after one month of treatment using the counter splint, shows the feet in a normal out-toe position.

Internal Tibial Rotation

Internal tibial rotation is nearly always concomitant with metatarsus varus whether acquired or congenital. It can be diagnosed on physical examination with the patient supine and the knee caps straight upward. If a plane starting at the anterior superior iliac spine and going through the patella intersects the foot laterally to the second toe, there is an inward rotation of the tibia. One treatment for internal tibial rotation is to hold the feet firmly in a shoe and apply external rotation with the flexible leather counter splint.

There is a tibial rotation that occurs in children four years and older which results from faulty sitting habits. These children are found to have "sitters nodules" on the anterior surface of the foot caused by sitting on the feet while watching television or playing on the floor, or occasionally while sitting in the school desk (Fig. 4). This



Fig. 4.—Internal tibial rotation in this child is the result of sitting on the feet. Sitters nodules on the anterior surface of the foot are noted.



Fig. 5.—Internal rotation of the hip is exhibited in this child resulting in a toeing-in of feet. The gait of child and the "cross-eyed kneecaps" are the diagnostic point of value.

inward rotation of the tibia can be improved by correcting the sitting habits. It also can be corrected by the use of the counter splint at night thereby serving several hours of counter-rotation pressure.

Internal Rotation of the Hip

Femoral anteversion or internal rotation at the hip is not a common finding in the infant. However, in older children this condition is common and results in an intoeing gait. The gait of the child is the diagnostic point of value on examination in the office. As the child advances eight or ten steps one can see the gait of the "cross-eyed kneecaps" (Fig. 5). The thighs swing forward, the kneecaps apparently face across the midplane and the child's feet reach the floor in an intoeing position. Of several ways that this internal hip rotation takes place, one is "spraddle leg" sitting in which the child sits on the buttocks, rotates the thighs inward and then places the feet to the side of the body pointing outward, away from the thigh. In order to sit this way there has to be a strong internal rotation of the hip which puts a great strain on the hip joint and soft tissues. The kneecaps can be seen to touch together in front



Fig. 6.—Same child as in Figure 5 exhibiting additional evidence of internal rotation of the hip. Note kneecaps touching together in front while the legs and thighs are extended.

with the legs and thighs extended (Fig. 6). Another cause is sleeping with the hips markedly rotated inward with the toes touching (Fig. 7). This may be done prone or supine. The correction of the first cause can be obtained by rectifying sitting habits. Faulty sleeping habits can be corrected by application of the counter splint.

Flexible Leather Counter Splint

We have used the flexible leather counter splint since 1967 on 142 patients. Almost all these patients had some other kind of treatment such as manual stretching, sand bags between the legs, wedges on the shoes, and Dennis-Brown splints. Forty-three percent were less than a year old and almost all had the problems of metatarsus varus and tibial torsion (Fig. 2). The patient tolerance and parental acceptance of this appliance have been good and correction takes place in a matter of a few weeks and is almost always permanent and satisfactory (Table 1).

In the one to three year age group, the most common condition is tibial torsion with or without forefoot varus. It commonly results from faulty sleeping habits with an intoe belly-sleeping position. The patient tolerance in this age group is not as satisfactory as the younger patients, but is much better than our past experience with the Dennis-Brown splint. Parental acceptance varies depending upon concern. The most common cause of failure of correction is parental rejection. Twenty-five percent of our patients are in this group.

In the four to six year age group, the most common cause is tibial torsion and internal hip rotation which results from faulty sitting habits as well as belly-sleeping. These patients often have nodules on the surface of the feet as shown in the illustration. Twenty-one percent of the patients fall into this group and patient acceptance is good. There is a problem for children who have to get up at night to go to the bathroom, since they are unable to walk with their feet strapped together. These children will occasionally pull the straps loose from the shoes or will unscrew the strap at night.

The oldest age group consists of 10% of our patients. They have all had internal rotation of the hips as a result of poor sleeping position. This group has a good tolerance of the counter splint at night because the patient himself is concerned about the intoeing gait.

We believe that this counter splint strap is a



Fig. 7.—Patient in sleeping position causing internal rotation of the hips. Note hips rotated inwardly and toes touching.

valuable addition to other measures one can use for the correction of internal rotation of the lower extremities. We do not recommend this appliance when there is a bony congenital deformity, nor is it to take the place of orthopedic surgical correction when such is necessary. However, since most of these rotations are of positional nature, they can be corrected quite satisfactorily with the counter splint.

The installation is done in the office. We have a leather punch supplied by the manufacturer to insert the templates into the lateral surface of the shoes. We keep a supply of various sizes of the straps. When a condition is diagnosed the parent buys the shoes prescribed by us, returns to the office, and the counter splint is applied. This splint may be attached to any normal, orthopedic, straight-last, prewalker, surgical or outflare shoe.

Summary

An internal rotation deformity in children results in the intoe gait. This may cause clumsiness and stumbling in the younger child resulting in facial injuries and an unattractive gait in the older child. The physician is responsible for early detection of this deformity and for supervision of its correction.

Results have been presented in a group of 142 children from a two-man private pediatric practice using a simple appliance to produce a correction. Ranging in age from below one to seven years and older, 103 or 73% of the patients showed improvement, 20 or 14% either failed to continue treatment or were not improved and 19 or 13% were lost to follow-up.

Observations indicate that results are more satisfactory when the appliance is used in younger patients. It has not been reported in the pediatric literature.

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Dr. Lanier, 2606 Park Street, Jacksonville 32204.

Combined Rheumatic and Congenital Heart Disease in Adult Patients

Benjamin Befeler, M.D., Frank J. Hildner, M.D., Lawrence S. Cohen, M.D., Roger P. Javier, M.D. and Philip Samet, M.D.

The association of congenital and acquired heart lesions in the same individual occurs infrequently. This is more so when the congenital lesions present are rare themselves. Comprehensive diagnosis is mandatory for adequate surgical and medical management.

This paper presents five patients who illustrate the unusual association of rheumatic and congenital heart disease and presents the techniques employed for diagnosis. Three of them (Cases 2, 3 and 4) had valvular heart disease associated with a secundum type atrial septal defect. The other two (1 and 5) had mitral valve disease and partial anomalous pulmonary vein drainage with an intact atrial septum. One of the patients (Case 5) has been reported elsewhere in detail.[1] Cases one and five constitute the 22nd and 23rd instances of the association of mitral valve disease and partial anomalous drainage of the pulmonary veins into a persistent left superior vena cava, recorded in the literature.[1-9]

Case Summaries

Case 1.—A 26-year-old Negro woman was referred for cardiac evaluation. The presence of a murmur was first noted five years prior to admission. In the ensuing years she complained of dyspnea and was treated for congestive heart failure. Four months prior to admission she had the onset of substernal pain with exertion. The dyspnea progressed to orthopnea, and paroxysmal nocturnal dyspnea occurred on two occasions. A history of rheumatic fever could not be obtained. On PE she was a thin Negro woman chronically ill-appearing in no acute distress. BP was 110/80. Pulse was 80 per minute and regular. There was jugular venous distention at 45° and a prominent "V" wave was noted. The lungs were clear. A left ventricular impulse was felt in the 6th intercostal space at the anterior axillary line. Right ventricular heave was palpable along the lower left sternal border. A systolic thrill was noted at the apex and along the left sternal border. S_1 was normal, the second sound had two widely split and fixed components. A grade III/VI pansystolic murmur was heard at the apex and left lower sternal border. An early systolic blowing murmur was heard at the second left interspace at the sternal border. An S_3 gallop was present. There was hepatomegaly. No cyanosis or clubbing was found. Electrocardiogram (EKG) (Fig. 1) revealed sinus rhythm, normal PR duration and a QRS axis of +60°. The record suggested right atrium (RA) enlargement and possible biventricular hypertrophy.

Chest x-rays and fluoroscopy showed cardiomegaly (Fig. 2) involving all chambers, principally left atrium (LA) and right ventricle (RV). The pulmonary vasculature was prominent with attenuation of the peripheral vessels suggestive of pulmonary hypertension. No intracardiac calcifications were noted.

The clinical impression was organic heart disease (etiology unknown, rheumatic or congenital) with mitral, tricuspid and pulmonic (or aortic) regurgitation, or VSD with pulmonary hypertension, cardiomegaly, sinus rhythm and Class III-C-D.

Hemodynamic studies showed a pulmonary artery (PA) pressure of 65/27, mean 38, RV pressure 65/12 and RA pressure of 11 mean with "A" and "V" waves of 13. The LA pressure was mean 14, "A" 20, "V" 14. Left ventricular (LV) pressure was 112/11. Simultaneous LV and LA pressures showed a mean gradient of 6 and an end-diastolic gradient of 6. LA was entered through a transseptal puncture. Dye dilution curves from the LV showed normal appearance time in the LPA and systemic artery ruling out a left-to-right shunt at the ventricular and aortic levels. A dye curve from the LA showed an early appearance time in the RA suggestive of left-to-right shunt at the atrial level. An injection into the right superior pulmonary vein revealed a RA appear-

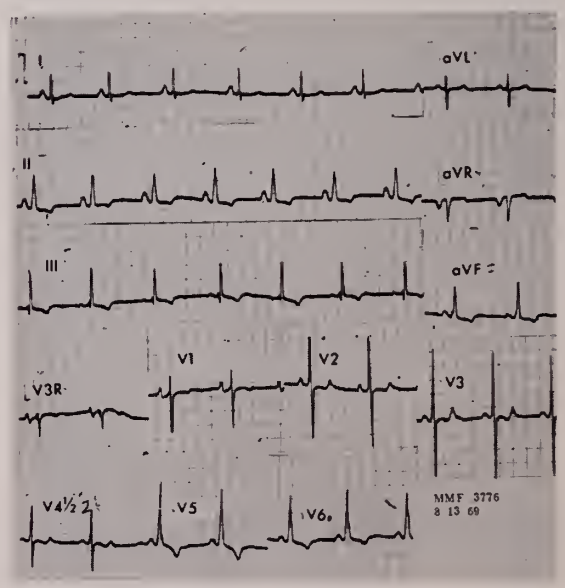


Fig. 1.—Surface electrocardiogram shows P-R 0.16, QRS 0.10, QRS axis in the frontal plane +60°. The ECG is suggestive of right atrial enlargement and biventricular hypertrophy (case 1).

From the Division of Cardiology, Department of Internal Medicine, Mount Sinai Hospital of Greater Miami, Miami Beach.

ance time similar to that seen when injecting in the superior vena cava, suggesting a sinus venosus defect with anomalous drainage of the right superior pulmonary vein into the superior vena cava. Appropriate injection from the SVC and IVC revealed normal appearance time, ruling out right-to-left shunts.

On September 3, 1969, she underwent open heart surgery including mitral valvulotomy, tricuspid valvuloplasty, and correction of partial anomalous drainage with a pericardial patch. The postoperative course was complicated by left heart failure. She slowly improved and was discharged on the 21st postoperative day. She was seen on an outpatient basis three months after surgery and reported considerable improvement. Minimal residual MI was present.

Case 2.—A 49-year-old white woman was referred for cardiac evaluation on 4/24/69. She gave a history of acute rheumatic fever at the age of 15 and 22. Murmur was present since childhood. She only complained of mild exertional dyspnea. On a routine examination in December 1966, a chest x-ray and EKG were normal. In March 1969, she noted the onset of palpitations. Several days later she noted increasing exertional dyspnea and was hospitalized elsewhere in atrial fibrillation (AF) with rapid VR and treated with digitalis and diuretics. Despite vigorous medical therapy she developed paroxysmal nocturnal dyspnea. On PE she was a well-developed, well-nourished woman who appeared in no distress. The BP was 130/60, pulse rate 96 and irregular; respirations 15, afebrile. The lungs were clear. The heart showed the point of maximal impulse in the fifth intercostal space, 2 cm. outside the midclavicular line. The first sound was loud at the apex. An opening snap was heard at the apex together with a long diastolic rumble. There was a grade III/IV systolic ejection murmur best heard in the right second intercostal space radiating to the vessels of the neck. There was a grade II/VI diastolic decrescendo murmur also, best heard in the right second intercostal space. The second sound was narrowly split and both components were of the same intensity. They moved little with respiration. There was a grade I-II/VI pansystolic murmur at the apex. The EKG revealed AF with moderate ventricular rate. On chest fluoroscopy the ascending aorta appeared dilated and aortic valve calcification was evident. The left ventricle was enlarged as was the left atrium. The clinical impression was rheumatic heart disease with moderate cardiomegaly, atrial fibrillation, aortic insufficiency and mitral stenosis and insufficiency as the major lesions together with probable aortic stenosis, Class III-C. Hemodynamic studies showed the following pressures: RA mean 9, RV 34/9, PA 34/16, mean 23; pulmonary artery wedge (PAW) mean 20. LA V 32, mean 20, LV 113/17, aortic pressure 109/38, mean 55. LA-LV gradient mean 3.5, end-diastolic 2 mm. Hg. Indicator dilution studies with LA injection and sampling in the PA revealed an early appearance time in the PA suggestive of left-to-right shunt. After LV injection with PA sampling, there was no early appearance in PA, ruling out a left-to-right shunt at the ventricular or aortic level. Injections of cardiogreen in the IVC and SVC with sampling from the FA showed no evidence of right-to-left shunt. An injection in the LA with sampling from the PA showed early appearance suggestive of the presence of ASD. There was also evidence of TI. LV angiography disclosed a moderately enlarged LV chamber with diffusely reduced LV contractions. The mitral valve was not calcified but was deformed. There was II/IV MI. A supra-aortic injection of contrast material revealed wide open aortic insufficiency, 4+ on a scale of 4. A few flecks of calcium were seen within the aortic valve. In summary, the catheterization findings were those of severe AI, minimal MS, TI and as ASD with left-to-right shunt only. The patient underwent open heart surgery using total cardiopulmonary bypass on 7/23/69 at which time aortic valve replacement and closure of an ASD was accomplished. She had an uneventful immediate postoperative course.

Case 3.—A 48-year-old woman was referred for cardiac catheterization. A history of joint pains was present in childhood. At the age of 13, a school physician noted a heart murmur. The patient was married at the age of 16. When seen, she was gravida 9, para 7. During all her pregnancies, she had peripheral edema. At the age of 23, migratory joint involvement returned and the diagnosis of active rheumatic fever was made. In 1961 she complained of shortness of breath and palpitations. She denied any chest pain. She was started on digitalis and diuretics. In the intervening years since 1961, she had a slow but steady progression of symptoms. On PE the patient was a well developed thin woman in no distress. BP 140/86, pulse 70-80, irregularly irregular. The lung fields were clear. There was no cardiomegaly. There was increased left ventricular lift as well as an RV thrust. The first sound was not accentuated. The pulmonic component of the second heart sound was increased. An opening snap was heard all over the precordium, most prominently along the left sternal border at the apex. A grade II/VI blowing holosystolic murmur was present at the apex with radiation to the axilla. A grade II/VI middiastonic rumbling, low-pitched murmur following the opening snap was heard at the apex. No basal diastolic murmurs were heard along the left sternal border. All peripheral pulses were palpable and there was no edema. The EKG showed AF with a VR of 70 per minute, and minor nonspecific ST and T wave changes but no definite left or RV hypertrophy. The chest x-ray revealed prominent main pulmonary arteries with distal tapering suggestive of pulmonary hypertension. All cardiac chambers appeared enlarged. The clinical impression was rheumatic heart disease, significant MS and insufficiency, AF, cardiomegaly, Class III-C. Hemodynamic studies on 9/26/68, demonstrated moderately severe MS (mean gradient 11-12 mm. Hg., end diastolic gradient 9 mm. Hg.), decreased cardiac output, MI, slight AI and decreased LV contractions by



Fig. 2.—Posteroanterior x-ray of the chest showing massive cardiomegaly involving all chambers. The pulmonary vasculature is prominent with attenuation of peripheral vessels, suggestive of pulmonary hypertension (case 1).

angiography. On 11/6/68 under cardiopulmonary bypass, replacement of the mitral valve was accomplished. At the time of surgery the amount of AI was thought to be minimal. No other lesions were found. Immediate postoperative course was uncomplicated.

On a postoperative ca diac catheterization performed on 5/22/69, six montbs after surgery tbe PA pressure was decreased from postoperative values and there was only a slight gradient. Dye curves disclosed a left-to-right shunt at atrial level (Fig. 3). The Qp to Qs ratio was calculated to be 2.1:1. Because of clinical improvement surgical closure of the ASD was not recommended at this time.

Case 4.—A 60-year-old white woman was admitted on August 21, 1968 for cardiac evaluation. Tbere was no bistory of rheumatic fever in childhood. At age 14, she was noted to have a rapid beart beat and was given digitalis and kept on this medication for a short period. A mu mu was also noted. Over the years she expe.ienced several bouts of rapid VR. In the tbree years prior to admission, she noted the onset of dyspnea on exertion. The dyspnea progressed and she was hospitalized several times. In 1965, she had a self-limited episode of hemoptysis. In the last few weeks prior to admission the dyspnea progressed to acute pulmonary edema. On PE she appeared chronically ill. Her BP was 110/70, pulse 96 and irregular. Cardiac findings were those of ca diomegaly witb tbe apical impulse in the 6th intercostal space in the anterior axillary line with a marked LV heave, as well as an RV thrust. The first sound was increased at the apex, followed by a pansystolic murmur, grade IV/VI. The second sound was narrowly split and was followed

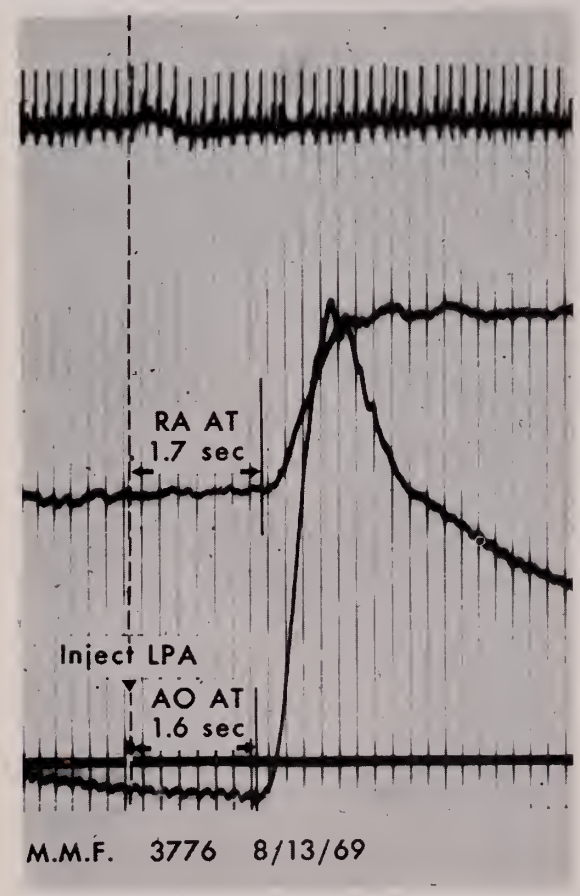


Fig. 3.—Shows a double draw dye dilution curve. Cardiogreen was injected into the left pulmonary artery and sampled from the aorta (AO) and the right atrium (RA). Early appearance time in the RA suggests the presence of a shunt at atrial or upstream the atrial level.

by a distinct opening snap. There was a sbort mid-diastolic rumble at the apex. No diastolic murmur was heard at the base. The lungs disclosed rales bilaterally. The liver was enlarged two fingerbreadths below the rigbt costal margin. There was no ascites and the peripheral pulses were all present and vigorous. The EKG showed AF with a rapid VR with numerous aberrantly conducted beats. There was RBBB and rigbt axis deviation. The cbest x-ray revealed marked enlargement of the right and left ventricle. The PA was grossly dilated and there was aneurysmal enlargement of the LA. There was marked pulmonary venous congestion. Clinical impression was rbeumatic heart disease with severe MI, pulmonary hypertension, cardiomegaly, AF, Class IV-D.

The patient underwent cardiac catheterization on 9/10/68. The pressures demonstrated moderately severe pulmonary hypertension (PA 58/22, mean 37). The indicator dilution curves showed a prolonged appearance time, a large area with a break in tbe downslope suggesting low cardiac output and a left-to-right sbunt. LV angiography sbowed a dilated left ventricular cbamber with 3+ mitral insufficiency on a scale of 4, contractions appeared decreased. An aortogram disclosed no AI. Catheterization results suggested moderate MI with pulmonary hypertension, no aortic valve disease and a suggestion of a left-to-right shunt. The patient underwent open heart surgery on 10/9/68 at which time the mitral valve was replaced by a Beall valve and a large secundum type ASD was closed with a primary suture. Postoperative course was uneventful.

Case 5.—A 54-year-old white married woman was referred for cardiovascular evaluation. She gave a history of rheumatic fever at age 17. She was well until age 44, when she developed AF and acute dyspnea. She was started on digitalis. At age 51 she noted the onset of increasing fatigue with light work. Within several months she manifested dyspnea and orthopnea without edema. Diuretics and supplemental potassium were added to her digitalis witb some improvement. On PE the BP was 150/80, pulse 80 per minute and irregular, and normal temperature. There was no cyanosis, no clubbing, edema or neck vein distention at rest. Examination of the heart revealed a visible and palpable point of maximal impulse in the fifth left interspace outside the midclavicular line. An RV heave, a systolic pulsation in the PA area and diastolic closure of the pulmonary valve were felt. S_1 was accentuated at the apex and the pulmonary component of S_2 louder than the aortic component. There was an opening snap and moderately long diastolic rumble at the apex as well as a grade 111 on a scale of VI apical holosystolic mu·mur transmitted to the axilla. Another, somewhat higher pitched, holosystolic blow was noted in the tricuspid area. Tbe liver edge was one fingerbreadtb below the right costal margin and was nontender. All peripheral pulses were palpable. The EKG showed AF and RV hypertrophy. Cardiac fluoroscopy with barium swallow showed moderate LA enlargement with displacement of the esopbagus to the right and posteriorly. The PA was enlarged with increased pulmonary vascular markings extending to the periphery. There was a double contour on tbe right border of the heart in the postero-anterior view. There was also elevation and compression of the left main stem bronchus. The clinical impression was rheumatic heart disease, cardiomegaly, major MS, significant MI, TI, AF, previous congestive heart failure, Class III-C. Hemodynamic studies showed the following pressures: RA 3, RV 37/2, PA 36/21, mean 26, LA mean 17, LV 120/8. LA-LV mean diastolic gradient 8. In summary, moderate RV and pulmonary hypertension, and MS. TI and was demonstrated by indocyanine green dye curve witb RV injection and RA sampling. Moderately severe MI was shown by LV cineangiography. A left-to-rigbt shunt was demonstrated by indicator dilution curve by a break in tbe downslope of the LA to LFA curve. The site was not better defined because of the presence of mitral and TI. The catheterization diagnosis was rheumatic heart disease with MS, MI and TI and left-to-right sbunt presumably above atrial level. On March 20, 1965, open heart surgery was performed. The LA was

markedly enlarged and distended. The RA and RV were also enlarged. Palpitation through the atrial appendage revealed an intact ventricular septum. The mitral valve was felt to be pliable with moderately severe stenosis involving fusion of both commissures. The central orifice would not admit a finger. The LA had marked venous drainage in the dependent portion arising in the area of the left superior pulmonary vein. A large vein was identified which communicated with a normally placed left superior pulmonary vein, this was ligated. Successful mitral valvuloplasty was also performed. The patient was discharged after a smooth postoperative course.

Marked improvement was noted on follow-up. Her exercise tolerance was excellent and she had resumed work. Cardiac examination revealed a TI murmur and catheterization revealed normal PA pressure and no left-to-right shunts. When last seen in 1968, she was doing well.

Discussion

Congenital heart lesions in patients with acquired valvular disease may be clinically overlooked. Similarly, at the time of cardiac catheterization the presence of shunts may not be established, unless a specific effort is made to uncover their presence.[10] An oxygen saturation series will only demonstrate relatively large shunts and unless a left-to-right shunt is suspected are not performed in all adult patients. Indicator dilution curves done to estimate the cardiac output, with injection in the right heart and sampling in a systemic artery, may demonstrate a break in the downslope of the curve suggesting the need for double draw curves to detect and localize left-to-right and right-to-left shunts.[11] Angiography is helpful if the proper views and injections are done. Our cases illustrate some of these points. Case 1, a patient with multiple valve lesions also demonstrated an early appearance time in the RA after dye was injected in the left PA and sampled in the RA and aorta (Fig. 3).

Mitral stenosis is a most common lesion in association with congenital heart disease in the adult. Of our five patients, four had mitral stenosis and other valvular lesions, four mitral insufficiency, three tricuspid insufficiency, one aortic insufficiency and the fifth patient had pure mitral insufficiency.

These patients usually presented clinically as subjects with mitral valve disease and the presence of a left-to-right shunt is often first suspected during cardiac catheterization or at surgery. The importance of complete preoperative diagnosis is clear since surgical repair of the congenital defects should be accomplished simultaneously with the valvular surgery.

Summary

Five cases of combined valvular and congenital heart disease are presented. Two patients demonstrated an unusual association, that of mitral valve disease and partial anomalous pulmonary vein drainage with intact atrial septum.

The importance of complete preoperative evaluation is stressed including careful clinical, electrocardiographic and fluoroscopic examinations, as well as cardiac catheterization, utilizing hemodynamic measurements, double draw dye curves and angiocardiography. The feasibility of simultaneous surgical repair of both the acquired and congenital cardiac lesions makes complete preoperative diagnosis imperative.

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See application form for annual meeting exhibits and films, page 47.

Pregnancy and Scleroderma

Systemic Sclerosis

Marion Z. Knupp, B.S. and James A. O'Leary, M.D.

Scleroderma is an uncommon disease of unknown etiology and accounts for 20%-30% of all cases of collagen disease. The combination of scleroderma and pregnancy is a rare event. To date, 11 case reports have been presented in the medical literature of concomitant scleroderma and pregnancy.[1] This paper will document another instance of this disease in pregnancy.

Although scleroderma is classified as a collagen disease, its essential nature and etiology remains obscure. Current thought would include this disease among the autoimmune disorders. Autoantibodies have been demonstrated against the patients' red blood cells. Autoimmune complement fixing antibodies and even anti-DNA antibodies have been identified. Even so, the LE cell preparation is rarely positive in scleroderma.[2]

Systemic scleroderma affects women 2.5 times more often than men. Disease onset may range from birth to old age, however, the majority of cases occur between age 30-60. Mortality rates indicate an 80% survival after two years of the disease while only 20% were living after ten years.[3] However, another study[4] documented the duration of illness in two cases at approximately 30 and 40 years. The median survival time is calculated at 13 months after diagnosis or 24 months after onset of symptoms.[5]

Pathological and Clinical Considerations

Scleroderma is a chronic disease characterized by progressive collagenous fibrosis. It exists in two forms: morphea affects patchy areas of the skin alone, and systemic involves the internal organs as well as the skin. Typically, the skin and its appendages are first affected. Later, skeletal muscle, alimentary tract, lungs, kidney, heart and blood vessels are the structures affected.

In the skin, edema is followed by collagenization. With progression of the disease, atrophy occurs and sometimes calcification. The clinical results can be evidenced in tight shiny skin in which the dermis is bound to the underlying structures. There may be reduced range of joint motion and flexion contractures. Ulcerations may occur because the blood supply is decreased in areas of collagenous fibrosis.[2] Raynaud's phenomenon is reported to occur in approximately 80% of patients.[3] In some acute cases, there is a specific arteritis. Fibrosis may thicken the blood vessel walls and narrow their lumens. The clinical course begins with an insidious onset of tightening of the skin of the face, neck, extremities or trunk. Facial involvement may be evidenced by a pinched expression. As facial muscles are involved, there may be difficulty chewing and swallowing. In the gastrointestinal tract, especially the esophagus, dense fibrosis and atrophy lead to stricture with decreased esophageal motility. Esophageal aperistalsis was demonstrated in 83% of cases in one study.[3] Dysphagia and regurgitation vomiting, abdominal distention, constipation, diarrhea and malabsorption are common findings in systemic sclerosis.

Bilateral fibrosis is commonly demonstrated radiographically in the lower lung fields. Pulmonary fibrosis of the septal walls and arteriolar thickening are the two lesions usually demonstrated in the lungs. Respiratory function will consequently be impaired depending on the degree of involvement. The kidney may present a pathologic picture similar to malignant hypertension, even without symptoms in the patient. There is hyperplasia of the interlobular arteries, fibrinoid necrosis of the afferent arteriole or glomerular

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tuft, and thickening of the basement membrane or "wire looping." In 46 cases studied by D'Angelo, 30% of patients had renal lesions while only one half of these were hypertensive.[3] Myocardial involvement is most significant in younger patients with scleroderma; fibrosis specifically related to systemic sclerosis being less apparent with increasing age. While cardiac involvement is a striking cause of death in scleroderma patients, it is more likely to be congestive heart failure secondary to pulmonary or systemic hypertension or arterial hypoxemia. Cardiac failure, pulmonary edema and renal failure related to the progressive course of the scleroderma are the recognized causes of death.[2-5]

Case Report

A 40-year-old Negro female, gravida 5, abortus 4, was hospitalized at 18 weeks' gestation because of an eight year history of scleroderma. Menarche occurred at age 13 with regular 28 day intervals and five days of menstrual flow. She had had four previous miscarriages, all at approximately eight weeks' gestation. Complicating factors of this pregnancy were a mild iron deficiency anemia as manifested by a 9.6 hemoglobin and a urinary tract infection. Prednisone 5 mg. daily had been prescribed for her condition, but this dosage was reduced by one half upon admission. The patient complained of stiffness of her legs, arms and neck which had decreased in the past few years, but disclaimed any gastrointestinal symptoms. Physical examination revealed dry, shiny skin over the fingers with areas of hypopigmentation at the antecubital fossae and neck. Stiffness and soreness of the muscles of the mouth was noted and the patient appeared as if always smiling. The skin was hard at the neck and extremities, while it was noted to be thick and rough over the chest. There was hyperpigmentation as well as hypopigmentation and also some alopecia of the scalp.

Except for findings relating to a mild anemia, the laboratory tests including a serum protein electrophoresis were within normal limits. The RA latex and the LE cell preparation were negative. The patient was discharged and followed closely in the clinic.

X-ray and laboratory findings obtained one year previously had indicated radiographically an essentially normal chest. The findings in the esophagus were consistent with scleroderma of the esophagus; otherwise, there was no evidence of pathology in the remainder of the upper GI tract. The colon also was described radiographically as being essentially normal. The EKG tracing demonstrated a sinus rhythm and was within normal limits.

Six days prior to term, the patient was admitted to the hospital with false labor, bloody show and premature amniorrhexis. A Pitocin induction was attempted for 6½ hours but because of midpelvic disproportion a cesarean section was performed. A healthy infant weighing 2254 grams with an Apgar Score of 8 and 9 at one and five minutes was delivered. There was no pathologic abnormalities observed in the placenta. Prior to surgery the dosage of prednisone had been increased to 10 mg. daily but was reduced to 2.5 mg. postpartum.

Four months later she was admitted for an evaluation of the scleroderma which appeared to be progressing. This was manifested by an increased tightening of all skin surfaces, multiple bilateral flexion contractures, and ulcerations about fingertips and knuckles consistent with Raynaud's phenomenon. Progression of the disease was noted since her evaluation 17 months earlier. An upper GI series including a barium swallow gave the suggestion of cardiac enlargement. Findings were compatible with a diagnosis of scleroderma. No peristalis was noted in the esophagus. The stomach and duodenal bulb were normal. Fixed dilatation of the distal duodenum and small bowel were also noted. This was assumed to be secondary to the collagen disease. Chest x-rays showed some increase in the transverse diameter of the heart. The impression was that of left ventricular cardiac enlargement. EKG patterns were described as definitely abnormal with septal fibrosis and an abnormal left axis.

Comment

A literature review shows that relationship of scleroderma with pregnancy is sometimes obscure.[6-9] That scleroderma does have an unfavorable effect on the pregnancy is unquestionable. The maternal prognosis is influenced both by the complications of pregnancy and by an increased incidence of maternal death. The duration of the disease is less important than the extent of systemic involvement. Fear has alluded to the frequent complication of toxemia with the probability of renal involvement.[1] Of the 12 case reports in the literature, there was one maternal death caused by renal failure, three other cases were complicated by the development of pulmonary edema, two of these terminating in death. One patient died postpartum of viral pneumonia following progression of her disease. All of the maternal deaths followed pulmonary and/or renal failure. Other complications have included occult uterine rupture, abruptio placentae, drug reactions, pleuritis, and pyelonephritis.

The fetal prognosis cannot be directly related to the degree of maternal disease. However, most authors agree that scleroderma causes increased fetal wastage. Abortions are very frequent in women affected with scleroderma which was confirmed by our patient even several years before the disease was manifested.[10] Perinatal mortality is also significantly high. Of the 21 pregnancies recorded, there were five abortions, three stillborns and one neonatal death.[1] Another factor influencing the fetal prognosis is a threefold increased incidence of prematurity. Scleroderma constitutes a serious hazard to both the mother and the fetus during pregnancy.

The question regarding the effect which pregnancy exerts upon the disease process remains unsettled. This is only partly understood because of the variable nature of the disease itself; chronic yet progressive, its course may be altered with remissions and reactivations. Pregnancy does not seem to be affected by the duration of the disease (eight cases unchanged) but there may be some correlation between the pregnancy and the progressive course of scleroderma. In two patients

there was a progressive deterioration during pregnancy which ended in death. In another two cases there was a postpartum exacerbation of the disease. While only a few definite conclusions can be drawn, it is apparent that pregnancy is dangerous to the patient with scleroderma and is relatively contraindicated.

Conclusions

Scleroderma results in a higher incidence of maternal morbidity and mortality.

Fetal wastage is increased as is the abortion rate.

Exacerbation of the sclerosis either during or following pregnancy is a common occurrence.

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Physician Participation in Northeast Florida Arthritis Foundation

Louis M. Sales, M.D.

In these days when the physician and the practice of medicine is being maligned everywhere, it behooves us to acquaint the public with the tremendous amount of time and effort which we give freely (and free) to various charities and voluntary health organizations. Unfortunately, even many of our colleagues are not aware of the ramifications of physician participation in this field. This article is an attempt to explore merely one facet of such involvement; namely, our relationship to the Arthritis Foundation and, more specifically, its Northeast Florida Division.

Organization and Duties

The Northeast Florida Division of the Arthritis Foundation with headquarters in Jacksonville serves 23 counties, operates an arts and crafts shop, bus for transporting the otherwise confined arthritic, loan closet, visitation program, informational program for both layman and physician, several arthritis clubs, and renders aid and assistance wherever possible to the arthritic. Its Board of Directors numbers 30, of whom 1/3 are practicing physicians. Many of these men have at one time or another served as officers of the Board in which capacity they have had to give many hours of their time and effort at no charge.

Supervising the medical activities of the Division and advising the Board of Directors on all medical matters is the Medical and Scientific Committee, which currently constitutes ten physicians from Jacksonville and one each from Gainesville and Ocala. Many of the members of this committee also double as members of the Board of Directors. Their functions include medical supervision of the Arts and Crafts Shop and screening of arthritics attending the shop for medical problems; speaking before interested lay groups on medical approaches to arthritic problems: formulating replies to questions which the Division receives about medical matters from individuals, newspapers, television and radio stations and, finally, once a year participating in open forums in Jacksonville, Gainesville, Ocala and in other cities of the area to which the lay public is invited at no charge. These forums serve to educate the public concerning arthritis so that they may avoid the pitfalls of the charlatan and the quack nostrum. The Medical Forum of the Air on WJAX is manned by members of this committee when topics discussed concern arthritis.

Clinics and Teaching Program

As part of the medical program of the Arthritis Foundation, members of the Medical and Scientific Committeee also man the Arthritis and Collagen Disease Clinic at the Duval Medical Center; the Consultative Clinic at Baptist Memorial Hospital, and the Arthritis Clinic at Gainesville—again giving of their time at no charge.

At Duval Medical Center the Clinic meets once a week and is manned by four internists, two of whom take the service in rotation six months out of each year, assisted by an orthopedic surgeon and a plastic surgeon who serve as consultants. Once every six weeks a treatment board is held at which all members of the Clinic meet to discuss interesting and unusual cases. Consultative services to the hospital and ward rounds on selected cases are also made by these physicians. They are joined in the Clinic and rounds by interns and residents assigned to them—thus spending much of their time in training the younger physician. This Clinic is now also participating in a large scale investigation of various anti-in-

Dr. Sales is Co-Chief of the Arthritis and Collagen Disease Clinics at Duval Medical Center and Baptist Memorial Hospital, Jacksonville.

flammatory agents, as well as partaking either directly or indirectly in certain selected other research programs.

In Gainesville a clinic similar to that of the Duval Medical Center operates on a somewhat smaller scale. Here, again, a treatment board meets every eight weeks in conjunction with the house staff and the consultant orthopedist as well as the attending internist.

At the Baptist Memorial Hospital of Jacksonville, a Consultative Clinic meets once a month. Here patients of limited means, referred by the private physician, are seen in consultation by members of the Medical and Scientific Committee, recommendations made, and the patient then referred back to his own physician for definitive therapy. The only charge is that made by the hospital itself for necessary x-ray and laboratory procedures—these being paid for at a reduced rate.

For the past several years, the Medical and Scientific Committee has biennially conducted a two-day arthritis seminar in Jacksonville for physicians and paramedical personnel in the area. Outstanding teachers from various parts of the country have been a standard part of each program. More recently, with a closer liaison between the University of Florida College of Medicine at Gainesville and JHEP, the same committee has become vitally involved in a coordinated training program in arthritis to function between the University itself and the Duval Medical Center. Formal lectures and conferences for the resident staff at Duval Medical Center and lectures to the nursing staffs at various hospitals have been one feature of this program. The committee also functions, together with its counterparts at Miami and the St. Petersburg-Tampa area, to put on exhibits at the convention of the Florida Medical Association; to prepare articles for publication in the Journal of the Florida Medical Association, and to bring to interested physicians at their hospital staff meetings up-to-date information in the field. Finally, one member of the committee is currently serving as representative from the Arthritis Foundation on the Council of Voluntary Health Agencies of the Florida Medical Association.

Summary

In this article, the author has elaborated upon some of the activities of the practicing physician in relationship to a voluntary health agency—in this case the Northeast Florida Division of the Arthritis Foundation. Similar physician participation holds true for many of the other voluntary health agencies in this area.

▶ Dr. Sales, 1204 LeBaron Avenue, Jacksonville 32207.

FMA Meetings

DECEMBER

4	Committee on Maternal Health—8:00 a.m. Disney World	
4	Subcommittee on Quackery—10:00 a.m. Orlando	
7	Florida Joint Council on Health of Aging—10:00 a.m. Jacksonville	
9	Committee on Rural Health, Lafayette County Health Center—10:30 a.m. Mayo	
11-12	Judicial Council—1:00 p.m. Miami	
14-15	Ad Hoc Committee on Drug Abuse & Subcommittees— Orlando	2:00 p.m. 10:00 a.m.
18	Ad Hoc Committee on HMO—10:00 a.m. Orlando	

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Dean's Page

The Problem and the Challenge of Outreach Programs of Medical Schools

Emanuel Suter, M.D.

Anyone who attended the 82nd Annual Meeting of the Association of American Medical Colleges could not be but overwhelmed by the recurrent pleas for medical schools to relinquish their ivory tower position and become involved more vigorously in community action programs. Not since the Flexner Report have the pressures been so great and varied as they are expressed today by students, faculty, community representatives, and spokesmen of local and federal governments.

The reasons for these demands vary greatly. Some take the educational view that medical schools must offer their students more realistic experiences in community-related health care. Others look upon medical schools as an enormous resource of medical competency which must be deployed to assist in solving our communities' health care problems. The situation is complicated by the urgent need for the accommodation of an ever increasing number of students in educational programs at all levels.

If the medical schools had as their only task the transmission of established knowledge to a new generation of physicians and other professionals, it would be relatively simple to respond to these service demands; however, medical faculties must remain engaged in basic and applied research to assure us that medicine of tomorrow will be better than it is today. Even with the best health care delivery system the "laying on of hands" can be no more effective than the extent of scientific understanding of biologic and emotional processes which underlie the condition.

Realizing these opposing forces are competing for program priorities in academic institutions and knowing there is need to expand existing programs and to develop new programs, the medical schools must be guided by principles, some of which are as follows.

1. Biomedical and sociomedical sciences as foundations of medical practice and health care delivery must be supported in terms of education and research and must remain the core of academic medicine.

2. The increased enrollment of students must be accommodated by the development of more efficient teaching and learning methods. The recently formed consortium of southern medical schools for the joint development of self-instructional materials should be of considerable help.

3. Community-oriented outreach programs in collaboration with the practicing professions will provide a new dimension for the teaching of preventive and curative medicine and for research in health care delivery.

4. Any of the new endeavors cannot be undertaken at the expense of existing and proven programs.

5. Above all, the ultimate goal must remain programs of the highest quality.

In order to fulfill their expanded role, medical schools will require the assistance of their parent university, the community, the practicing physician, and the government. The College of Medicine at the University of Florida is soliciting this active collaboration.

Dr. Suter, University of Florida College of Medicine, Gainesville 32601.

Dr. Suter is Dean of the University of Florida College of Medicine, Gainesville.

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Medical News

Infectious Diseases Program at Miami Beach

A seminar on "Infectious Disease 1972—Treatment and Prevention" will be held in Miami Beach, Jan. 10-11, 1972.

The program, sponsored by the University of Miami School of Medicine, Department of Epidemiology and Public Health and the Mount Sinai Hospital of Greater Miami, will be held at the Eden Roc Hotel at Miami Beach.

Fees include $75 for physicians and attorneys: $10 for interns, residents, fellows, nurses and medical, nursing and law students.

Additional information may be obtained from Office of Postgraduate Medical Education, Mount Sinai Hospital of Greater Miami, Miami Beach 33140.

Family Practice Examination

The American Board of Family Practice will conduct its next round of examinations on April 29-30 at various centers throughout the country.

Deadline for receiving applications for the examination is Feb. 1, 1972, according to Dr. Nicholas J. Pisacano, Secretary of the Board.

Information may be obtained by writing to Dr. Pisacano at the University of Kentucky Medical Center, Annex #2, Room 229, Lexington, Ky. 40506.

Professional Liability Seminar at Miami University

A course aimed at informing physicians of their legal rights in the field of professional liability will be offered by the University of Miami early next year.

Entitled "Medical Malpractice, a Legal Course for Doctors," the sessions will be held March 1-4 at the Americana Hotel in Bal Harbour. Sponsors are the Law Center and the School of Medicine of the University.

Open only to doctors and hospital administrators, the course will be presented by lawyers on a nonadversary, factual legal and practical basis. The registration fee of $125 will include a copy of the published proceedings.

Registration may be accomplished through the Law Center, University of Miami School of Law, P. O. Box 8087, Coral Gables, Fla. 33124.

Fellowship in American College of Legal Medicine

Alfred J. Nadler, M.D., LL.B., of Miami, has been elected to Fellowship in the American College of Legal Medicine at its 1971 meeting in New Orleans.

The next clinical-professional meeting of the college will be held May 12-13 at Miami Beach.

Dr. Reynolds Chairs New Department

Richard C. Reynolds, M.D., has been appointed Chairman of the new Department of Community Health and Family Medicine at the University of Florida College of Medicine.

Creation of the department was advocated by the 1970 Legislature and implemented last spring by the Board of Regents.

A native of New York State, Dr. Reynolds received his M.D. degree from Johns Hopkins in 1953. Since 1968 he has been Chief of the Division of Ambulatory Medicine and Community Programs in the Department of Medicine.

Scholarships Awarded to Miami Students

The United States section of the International College of Surgeons has awarded undergraduate surgical scholarships to two University of Miami medical students.

Recipients of the scholarships are Mr. Thomas E. Moses and Mr. James D. Daughtry. They will study general surgery at Guy's Hospital in London, England, under the preceptorship of Lawrence Abel, M.D.

Dr. Abel is a British Section Honorary Fellow of the College.

Kidney Disease Board Is Appointed

An 11-member Kidney Disease Board has been appointed by Emmett S. Roberts, Secretary of the Florida Department of Health and Rehabilitative Services.

Rep. Richard Hodes, M.D., D-Tampa, was the sponsor of the 1971 legislation creating the new Board, and its first meeting was September 3.

The Board's functions will include efforts to make renal dialysis more generally available to Floridians who suffer from severe kidney disease; and to seek ways of prevention.

The Board consists of the following members: Dr. Benjamin Vander Werf of Jackson Memorial Hospital in Miami, Dr. Robert Cade of the University of Florida, Gainesville; Dr. Charles Hayes of the Riverside Clinic, Jacksonville, and Dr. Lawrence Kahana of Tampa General Hospital, all physicians; Mr. Wayne Herrel of the J. Hillis Miller Medical Center, Gainesville and Mr. Marvin Siegal of the University of Miami School of Medicine, representing hospitals and medical schools.

Dr. Robert Price of Tampa General Hospital, Miss Marian Brozon, West Palm Beach, and Mr. J. W. Herbert, Jacksonville, representing local health agencies; and Mr. Neroy Anderson of Pensacola, and Mr. James Driver of Winter Park, representing the general public.

University of Miami Faculty Appointments

Two faculty appointments at the University of Miami School of Medicine were announced recently by Dean Emanuel M. Papper.

Victor A. Politano, M.D., was named professor and chairman of the Department of Urology; and Jerome Beloff, M.D., has joined the faculty as associate professor of family medicine and pediatrics.

Dr. Politano, a member of the faculty since 1962, has been serving as acting chairman since 1969 when urology was elevated from divisional to departmental status. A native of Pennsylvania, he received his M.D. degree from Duke University School of Medicine and is a Diplomate of the American Board of Urology and a Fellow of the American College of Surgeons.

Born in Kingston, N. Y., Dr. Beloff received his M.D. degree at the Columbia College of Physicians and Surgeons. A Fellow of the American Academy of Pediatrics, he comes to Florida from the Yale University School of Medicine. Dr. Beloff will head the professional program in the South Dade Primary Care Project, a program for the poor and near poor. He will supervise eight resident physicians assigned to the project.



Editorials

The Season for Hope

Christmas is a time for children, for cheerfulness and make believe, for faith, hope and fantasy, for looking at the world as a child looks at it. But, in all the world today, there is no child's fairy tale. The surface of the waters are troubled and the cries of the politicians bring on disputes between men and nations. Yet underneath, tides are running strong for peace and for unity within the human family. It is no accident that however belligerent they sound, the leaders of the world also argue for peace. The theme is the same in Paris, Washington and Moscow, where even in the Soviet Union, the politicians are afraid of the poets. The arms race goes on, the struggle for influence and territory continues but despite all the shoving, shouting and maneuvering, all stop short of all out wars. Even small wars are costly and risky. For all their wealth, nations can not engage in an arms race and still have enough left over to deal with the mounting problems of rapidly growing populations. Greed and ambition are just as strong in the world as ever and self-interest is evident in cautious moves toward negotiation and accommodation, yet, the strongest powers can not always work their will on the rest of the world.

The child's wisdom is that he assumes life will go on and on, for without faith, striving effectively against the humdrum daily chores is a dismal existence. The hope of peace on earth, which was illuminated almost 2,000 years ago, seems a distant goal and yet, each year, at Christmas time, faith is renewed that we will someday achieve lasting peace and brotherhood throughout the world. A child's trust in the miracle of Santa Claus sustains him all of his life, knowing that if he believes hard enough in something, he has made a long step toward achieving it. But simply believing, unless he acquires knowledge and maturity, never will the child realize that our most dangerous problems in the city and the family, in politics, in education and in our definitions of welfare, arise from the false assumption that the material environment outside an individual has the power to create happiness. And this season's outward glitter and gaiety and feasting and tinsel and toys can never do this. There is one achievement, however, that makes this time of the year glow and that is the drama of sharing ourselves and what we have with others. This, the child, knowing by intuition, does without reasoning.

Christmas is our greatest human moment, offering clear proof and reaffirming that the basic elements of human goodness and affectionate impulse, often buried in the hearts of men, nevertheless, are as universal as the light of the sun. Christmas is a celebration but the traditions that cluster around the day have significance only if they translate the heart's intention—the yearning of the human spirit to encompass and express faith, hope and love. Faith, hope and love can neither be bought, sold or bartered: these can only be given away, for these are the gifts without price, the ornaments incapable of imitation, the gifts of the Magi. Attained by some adults at this season of the year, though not easily acquired; they are possessed in unlimited quantities by children always.

C.M.C.



Campbell's Soups... wide variety...for limited appetites

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1. Demeulenaere, L.: Action du R 1132 sur le transit gastro intestinal, Acta gastroent. Belg. 21:674-680 (Sept.-Oct.) 1958.

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should not be exceeded, and medication should be kept out of reach of children. Signs of accidental overdosage may include severe respiratory depression, flushing, lethargy or coma, hypotonic reflexes, nystagmus, pinpoint pupils, tachycardia; continuous observation is necessary. The subtherapeutic amount of atropine sulfate is added to discourage deliberate overdosage.

Adverse Reactions: Side effects reported with Lomotil therapy include nausea, sedation, dizziness, vomiting, pruritus, restlessness, abdominal discomfort, headache, angioneurotic edema, giant urticaria, lethargy, anorexia, numbness of the extremities, atropine effects, swelling of the gums, euphoria, depression and malaise.

Overdosage: The medication should be kept out of reach of children since accidental overdosage may cause severe, even fatal, respiratory depression.

Dosage: The recommended average initial daily dosages, given in divided doses until diarrhea is controlled, are as follows:

Children:

3-6 mo.... ½ tsp.* t.i.d. (3 mg.)
6-12 mo... ½ tsp. q.i.d. (4 mg.)
1-2 yr..... ½ tsp. 5 times daily (5 mg.)
2-5 yr..... 1 tsp. t.i.d. (6 mg.)
5-8 yr..... 1 tsp. q.i.d. (8 mg.)
8-12 yr.... 1 tsp. 5 times daily (10 mg.)
Adults:.... 2 tsp. 5 times daily (20 mg.)
or 2 tablets q.i.d.

*Based on 4 cc. per teaspoonful.

Use of Lomotil is not recommended in infants less than 3 months of age.

Maintenance dosage may be as low as one-fourth the initial daily dosage.

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Judicious Use of Blood Transfusions

Neil Abramson, M.D.

Recently, discussion has been rampant concerning the misuse of blood transfusions and the complications, early and late, of transfusion therapy. At the local level and the national level, suggestions have been made that an unnecessary amount of blood is being given and an excessive amount is wasted and eventually discarded. Information has been disseminated that single unit blood transfusions are administered too frequently and this is a deplorable practice. The purpose of this editorial is to outline, albeit briefly, the judicious use of blood and blood components.

The key to the problem concerning blood wastage or single unit blood transfusion revolves around the primary decision whether or not to give any blood at all. There is little argument concerning the judicious use of blood transfusions to a patient with overt bleeding, hypotension, tachycardia, and as a result, poor perfusion of the central nervous system or congestive heart failure. On the other hand, there is little argument concerning the injudicious use of blood transfusions to those with chronic anemia. Individuals with long lasting anemia, from renal disease, liver disease, chronic hemolytic anemia, etc., are well compensated for their chronic deficiency by expansion of the plasma volume and physiologic alterations in their oxygen-delivering capacity. Such patients do not have hypotension, tachycardia or little, if any, symptoms of impaired perfusion. To them, the use of blood is not only of no benefit, it may be highly dangerous (bone marrow suppression, antibody formation, transmission of hepatitis-associated antigen, iron overload, increased volume to an otherwise compensated circulatory system). The arbitrary infusion of blood in preparation for surgery in order to meet certain preconceived ideas concerning adequate hemoglobin or hematocrit levels similarly should be questioned and in many instances deplored.

Dr. Abramson is Assistant Professor of Medicine, University of Florida College of Medicine, Gainesville and Chief, Hematology Division, University Hospital, Jacksonville.

For some time isolated components of blood have been available nationwide. We are now in a position to obtain specific blood components to avoid the use of whole blood with its inherent complications. Those patients requiring platelets can receive platelet concentrates or fresh blood, those requiring red blood cells for oxygen-carrying capacity can receive packed red cells, and those requiring expansion of the blood volume can receive saline, buffered electrolyte solutions, Dextran, Albumin, etc.

A single blood transfusion, which has been specifically criticized by the hospital accreditation committees, is defined as the "giving of a single unit of blood at one time, a single unit being considered 500 cc. or less." Many generations of medical students have heard that transfusions should not be administered unless two units were required. For the most part, it is true that where one unit was sufficient, none was required; however, there are numerous examples wherein one unit of blood or one unit of packed red cells was clearly necessary, but no transfusions or two transfusions were highly dangerous. For example, a patient with severe anemia from pernicious anemia or folic acid deficiency can develop symptoms of anoxia from lack of oxygen-carrying capacity but due to the chronicity of the development of anemia, the blood volume in this patient is over-expanded. The use of one unit of packed red cells or less with digitalization and/or diuretic therapy may be very necessary. The use of more than one unit of blood or packed cells or even the use of one unit of packed cells given too fast may be dangerous resulting in congestive heart failure and death.

Finally, tests are available at most blood banks for the detection of hepatitis-associated antigen on all blood or blood components. These tests do not detect all the potential cases of hepatitis, but blood or blood components which are clearly unsafe for administration can now be eliminated. The use of blood components in con-

trast to whole blood transfusions may also eliminate eventual cases of hepatitis; the hepatitis-associated antigen is found less frequently in packed red cells, albumin solutions, gamma globulin solutions, but more frequently in pooled plasma, cryoprecipitate, and fibrinogen solutions.

Little or no comment is needed concerning blood wastage. It is a necessity to have an excess quantity of blood on hand. Fortunately, many patients never require the transfusions that are anticipated. Consequently, blood wastage is unavoidable. Elimination of wastage is possible now with the availability of frozen blood. Programs using this modality are being considered by which patients may voluntarily donate their blood prior to elective surgery so that autologous blood may be returned to them when needed during or after surgery.

▶ Dr. Abramson, 2000 Jefferson Street, Jacksonville 32206.

The Physician as a Voluntary Worker

Louis M. Sales, M.D.

An article in this issue of the Journal sets forth some of the functions of the practicing physician in his role as a volunteer worker for a voluntary health agency—in this instance the Arthritis Foundation. What is said holds true not only for this agency and the physician's role in it but for other agencies of similar nature including the Cancer Society, Heart Association, TB and Respiratory Disease Association, Polio Foundation, and the various agencies for cerebral palsy, crippled children, and a host of others. Obviously, with so wide a field of coverage, this no longer represents a small and select group of physicians but points up the fact that, despite many detractors, the practicing physician is very vitally interested in the welfare of his patients and of the community at large—even at the expense of considerable time and effort on his part without recompense.

Perhaps the words "without recompense" are not entirely correct. The challenge which these areas offer and the satisfaction derived from active participation cannot be measured on any dollars and cents scale. The brightening of one's image and the increase in one's stature in the public eye which these activities gain could not be duplicated by a host of public relations firms. The opportunity to see immediate and tangible results is limitless. For those physicians who may have forgotten, for those who "can't" find time, and for those who perhaps do not know of these many challenging areas wanting and needing their dedication and leadership, this editorial is a reminder. Such leadership, which only a physician can give, does more than anything else to bring home to the public the fact that medicine, growing up and branching out into fields never previously touched upon or even dreamed of, still remains in close and intimate personal contact with the needs of the patient and the community.

▶ Dr. Sales, 1204 LeBaron Avenue, Jacksonville 32207.

The Numbers Game — Our Style!

Robert L. Andreae, M.D.

We, as physicians, have always wanted an easy system whereby our medical or surgical services could be described so accurately for insurance and other third parties that no one would question what we did or did not do. Now Florida Blue Shield has accepted such a system—AMA's Current Procedural Terminology, CPT.

Medicare and the major insurance carriers have accepted it. The FMA Committee on Relative Value Studies has also taken its descriptions of services right out of the CPT manual, thus binding all of our descriptions together in a single system to save time for the physician and to insure payment for the proper level of service.

See Special Article page 44.

It's been a hard fight to get things done "our way." It is now up to us to use CPT to save ourselves time and aggravation as well as hostility against those who formerly questioned exactly which service had been rendered.

CPT won't be perfect—nothing in medicine is—but the improvement will be ours for the using. AMA's Current Procedural Terminology, Second Edition, can be obtained by having your secretary write: AMA, 535 North Dearborn Street, Chicago, Illinois 60610.

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Dr. Andreae, 3000 Bayview Drive, Fort Lauderdale 33306.

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Letters

Dear Editor:

The September issue of the Journal of the Florida Medical Association carried a reprint of an editorial from the Westchester Medical Bulletin entitled "Problems on Earth," advocating the temporary abandonment of our space program. Such a policy would appear to me to be utter folly.

The competition for the tax dollar is keen and the rising demands of our social planners cannot be ignored, but it takes no genius to see that our individual and national survival may well be tied to the success of our space program. In our time, we have seen the aeroplane change the course of history; but there were probably some at Kitty Hawk who admired the "stunt" that the Wright brothers performed, but deplored the waste of time and money. I hope any doctors who were present were not among those myopic individuals. No one yet knows where man's venture into space will lead, but its impact upon our civilization will certainly exceed anything we can imagine.

Aside from the above considerations, the economic policy, advocated by the editorial, is certainly questionable. There must be some inherent fallacy in a theory which would withdraw financial support from our inventive, productive citizens in order to bestow this support upon the less productive. There seems to be little prospect that the day will ever come when productive people may cease supporting the non-productive, nor will the latter ever profit by holding back the former.

A. Fred Turner Jr., M.D.
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Deaths

Adickes, Edward J., Indialantic; born 1919; New York University, 1946; member AMA; died September 7, 1971.

Broward, John A., Miami; born 1923; Emory University, 1947; member AMA; died May 9, 1971.

Cantor, Jack L., Miami Beach; born 1909; University of Virginia, 1932; member AMA; died July 5, 1971.

Ebert, William B., Deerfield Beach; born 1913; Columbia Medical School, 1940; member AMA; died January 20, 1971.

Gable, Nonie W. Jr., St. Petersburg; born 1899; Emory University, 1923; died June 28, 1971.

Habegger, Myron L., Rockledge; born 1904; University of Indiana, 1932; member AMA; died September 23, 1971.

Harris, Robert M., Miami Beach; born 1897; Emory University, 1921; member AMA; died May 20, 1971.

Hicks, Lawrence, Pensacola; born 1914; Meharry Medical College, 1950; member AMA; died August 31, 1971.

Howell, Robert S., Coral Gables; born 1904; University of Georgia, 1932; died May 17, 1971.

Lockwood, Raymond M. Clearwater; born 1919; University of Pittsburgh, 1943; member AMA; died June 21, 1971.

Montague, Fairfax E., Palatka; born 1925; Emory University, 1952; member AMA; died July 15, 1971.

Nix, Oscar G., Pensacola; born 1918; Tulane University, 1944; member AMA; died January 1, 1971.

Snedeker, Bernard C., Fort Lauderdale; born 1904; University of Michigan, 1936; member AMA; died June 15, 1971.

Willis, William R., Orlando; born 1919; Emory University, 1943; member AMA; died July 23, 1971.

Wolf, Richard S., Hialeah; born 1929; University of Cincinnati, 1954; member AMA; died August 3, 1971.

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Special Article

Coding: Not Digits for Deception But Numbers for Know How

Defining and describing services performed has been a major problem in medicine. In "Current Procedural Terminology" the American Medical Association makes available uniform descriptions. Like services are arranged together and code numbers assigned to them. The insurance industry has accepted the descriptions and coding; now all of us will speak the same language, even computers.

Relative values assigned to these services automatically sets up a relation between the services and with assignment of a conversion factor gives a fee schedule. This is an addition to the descriptions and coding.

The code system is an expanded numerical system utilizing five digits. This gives greater latitude and leaves many gaps for insertion of new services and new procedures. This, then, is coding and defining of services.

CODING AND NOMENCLATURE

The first digit designates TYPE OF SERVICE. (1) to (6) are primarily surgical services. They are as follows:

(1) Integumentary system; (2) Musculoskeletal; (3) Respiratory and Cardiovascular; (4) Digestive; (5) Genito-urinary (including obstetrics); (6) Endocrine and Nervous System (including eye and ear); (7) Radiology; (8) Pathology; (9) Medical (including diagnostic studies).

The second digit defines REGIONS within the general system. For example: 40-Lips, 41-Tongue, 42-Salivary glands, Pharynx and Tonsils, 43-Esophagus and stomach, 44-Intestines, 45-Rectum, 46-Anus, 47-Biliary tract, 48-Pancreas, 49-Peritoneum and Omentum. In the Pathology section the second digit reflects categories such as urinalysis, chemistry, immunology, etc. In the Medical Services (0) is the Physician service and subsequent numbers are different categories of diagnostic and therapeutic medical services.

The third digit has a special significance primarily for physicians' medical services. *It denotes location where the service is provided.* O-Office, 1-Home, 2-Hospital, 3-Convalescent, 4-Domiciliary, 5-Emergency Room—BUT ONLY IF THE PHYSICIAN IS ASSIGNED TO AN EMERGENCY ROOM SERVICE OR IS CONTINUOUSLY PHYSICALLY PRESENT IN THE EMERGENCY ROOM. 6-Designates consultations regardless of the location where they are performed, 7-Immunizations and Therapeutic Injections, 8-Psychiatric Services and 9-Special Medical Monitoring Services.

The fourth digit is related to specific service as is the fifth digit from (5) through (9). This gives us a progressive numerical sequence for a logical order of listing of similar and related services.

From (0) through (4) the fifth digit designates age group: 0-Adult, 1-Adolescent, 2-Late Childhood, 3-Early Childhood, 4-Infant. A casual observation would give the impression that the fifth digit denoting age is important only in Pediatrics. Consider, however, that General Practice, all Surgical specialties and Anesthesiology deal with all age groups. Internal Medicine, its various sub-specialties and Dermatology encompasses adolescents and at times even younger children. . . .

Probably the most difficult to understand portion of the new coding system is the section of Medicine—with or without the modifier code. Probably all physicians except Pathologists and Radiologists will use this section almost daily. . . .

How do we use Coding in our offices? First, we need to determine what different types of medical services are performed in our offices. These are performed for new patients, and also for established patients. . . . Although each of us may not use all of the different categories of examinations, we are all aware of the fact that there is no such thing as a ROUTINE OFFICE VISIT. There are many variations in regard to time, complexity and severity of the illness. This is the reason the following system has been devised:

DEFINITIONS

For the purposes of this section, the following definitions apply:

MINIMAL SERVICE: Injections, minimal dressings, etc., not necessarily requiring the presence of the physician.

BRIEF EXAMINATION, EVALUATION OR TREATMENT: One concerning a relatively simple problem requiring a short period of time.

LIMITED EXAMINATION, EVALUATION OR TREATMENT: One which may include a brief or interval history, examination, discussion of findings and/or rendering of service.

INTERMEDIATE HISTORY AND PHYSICAL EXAMINATION: A complete history and physical examination of one or more organ systems, but not requiring a comprehensive evaluation of the patient as a whole.

EXTENDED EXAMINATION, EVALUATION OR TREATMENT: One requiring an unusual amount of time, skill or judgment, but not necessitating a complete examination or re-examination of the patient as a whole.

COMPREHENSIVE HISTORY AND PHYSICAL EXAMINATION: A complete evaluation of the patient.

Excerpts reprinted from the Oklahoma County Medical Society Bulletin, submitted to the Journal by Dr. Robert L. Andreae of Fort Lauderdale.

NEW PATIENT: One new to the physician. The initial comprehensive history and physical examination need not be done at the time of the first visit.

ESTABLISHED PATIENT: One known to the physician and/or whose records are normally available.

OFFICE VISITS

New Patient

90000 *Brief* evaluation, history, examination and/or treatment.
90010 Initial *limited* history and physical examination, including initiation of diagnostic and treatment program.
90015 Initial *intermediate* history and physical examination, including initiation of diagnostic and treatment program.
90020 Initial *comprehensive* history and physical examination, including initiation of diagnostic and treatment program, adult.
90021 Adolescent.
90022 Late childhood.
90023 Early childhood.
90024 Infant.

Established Patient

90030 *Minimal* services, e.g., injection, immunization, minimal dressing, etc. (independent procedure). (See also 90700, 90705).
90040 *Brief* examination, evaluation and/or treatment, same or new illness.
90050 *Limited* examination, evaluation and/or treatment, same or new illness.
90060 *Intermediate* examination, evaluation and/or treatment, same or new illness.
90070 *Extended* re-examination or re-evaluation.
90080 *Comprehensive* re-examination or re-evaluation, adult.
90081 Adolescent.
90082 Late childhood.
90083 Early childhood.
90084 Infant.
90088 Periodic or annual type examination, adult.
90090 Well-baby care, routine, with a maximum of 12 visits during the first year. This item does not include immunizations nor care for illness in hospital, home or office (includes 90285).

The problem now is—how do we use this new system and distinguish between the different types of examinations. Under the category of NEW PATIENTS a brief evaluation would be exactly what it states. It would be a relatively simple problem requiring a minimal period of time in addition to the preparation of the records which are required to establish a chart on a new patient. It would encompass a problem such as an upper respiratory infection, a skin rash, which did not require extensive investigation. The comprehensive history is obvious.

The problem then revolves itself into where, in between these two, do we place the limited history and where the intermediate history. This will, of course, be subject to considerable individual variation but if we are to use a system with a code number that is meaningful, I feel that we need to have certain guide lines which we would all use in differentiating which of these two would apply to a given patient.

A limited history and physical (90010) would be for a problem somewhat more complicated than a mild upper respiratory problem, but NOT one which would be a complete evaluation of a given system such as the cardio-respiratory system. This latter would more properly fall under an intermediate history (90015). It would include a detailed cardiac and respiratory history, including the peripheral vascular system. . . .

The differentiation of the types of examinations on established patients is a little more complicated than with a new patient. It should require a greater degree of care and consideration because it is the type of service that would be done on a repetitive basis. A brief examination might entail looking at a skin rash and prescribing an ointment. . . . On the other hand, if a patient came in for a blood pressure check, and the review of symptoms revealed that there was some dizziness, or headaches, or some mild chest discomfort and if examination revealed the blood pressure to be somewhat elevated, requiring some revision of the therapeutic program and possibly a discussion of the salt intake in the patient's diet, this would be more than a brief examination and would come under the category of a limited examination. If the patient with the respiratory infection had fever, chills, severe malaise, chest pain of a pleuritic nature and a cough productive of a purulent sputum; physical examination would require a thorough evaluation of the chest as well as the head and neck. A chest x-ray might be required and a blood count. Following these procedures the evaluation of the studies together with the history and physical examination and the institution of the therapeutic program for the patient would mean that this was not limited but should be classified as intermediate.

If the patient who had been evaluated in the past and had a peptic ulcer, hypertension and emphysema, returned after a six months absence complaining of dyspnea, chest pain, some productive cough, epigastric pain, some nausea and vomiting, food intolerance and some change in the color of the stools, this would probably require a fairly comprehensive re-investigation of the history of the cardiac, respiratory and GI systems. Physical examination would be extensive. . . . Evaluation of electrocardiogram, chest x-ray and other appropriate laboratory studies would be indicated after which a treatment program would need to be initiated. This is obviously quite an EXTENDED problem requiring a considerable degree of time exceeded only by a complete comprehensive evaluation. If the patient was somewhat of a difficult historian and if there were considerable functional complaints in addition this might require a comprehensive re-evaluation with a complete systemic review and a complete physical examination. This difference between an extended and a comprehensive examination would be determined probably not only by the complexity but by the ability of the patient as a historian. This would determine the amount of the *time* and *effort* which was expended in performing this service for the patient. . . .

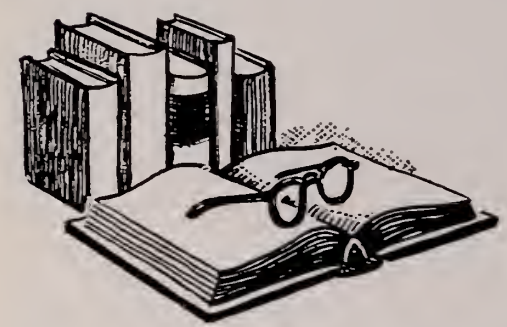
The extreme ends of the scale are relatively simple. The intermediate areas of the scale are much more difficult to use. It is essential that we learn how to do this, however, because over half the people we see fall at neither end of the scale but somewhere in between. What percentage of the various types of visit each physician would utilize would depend considerably on his particular practice and to a certain extent on his particular field of medicine. The larger the volume of patients which a physician sees the greater the percentage would be of the briefer and less involved services. The more limited he becomes the greater the percentage of the more complicated visits.

Immunizations, monitoring services, specific diagnostic services, allergy testing, and special therapeutic procedures including physical therapy are listed and coded. Consultations are of four types, are well defined, and should pose no problem.

The one facet not yet discussed is SPECIAL SERVICES such as:

99000 Collection and handling of specimen for transfer to a laboratory and billing for laboratory charges.
99040 Detention, prolonged, with patient requiring attention beyond usual service, per hour.
99070 Supplies such as sterile trays provided by the physician.
99080 Special reports.
99200 Unlisted services or procedures.

Some of you may well be asking, at this point, what about Modifier Codes? These are included in the 1969 California Coding. They may not be included in the AMA's new Current Procedural Terminology. Because of this any discussion about Modifiers has been deliberately omitted. There may be questions still unanswered. As was pointed out previously—this is only a beginning. Understanding comes only through personal experience. □



Books Received

Receipt of the following books is acknowledged. While time and space will not permit review of all books received, medical readers interested in reviewing particular books are invited to address requests to the Editor. Following acceptance of a written review for publication, a reviewer may then retain the book reviewed for his personal or favorite library.—Ed.

Guides to the Evaluation of Permanent Impairment by the Committee on Rating of Mental and Physical Impairment of the American Medical Association. Pp. 164. Price $5. Copyright, Chicago, American Medical Association, 1971.

Symposium on the Functional Physiopathology of the Fetus and Neonate, Clinical Correlations. Edited by Harold Abramson, M.D. Pp. 182. 61 illustrations. Price $15.00. St. Louis, The C. V. Mosby Company, 1971.

The Mental Health of the Child. Edited by Julius Segal, Ph.D. Pp. 588. Price $5.00. Washington, D. C., U.S. Government Printing Office, 1971.

Handbook of Clinical Dermatoglyphs by Musallam S. Elbualy and Joan D. Schindeler. Pp. 64. Price $6.95. Coral Gables, University of Miami Press, 1971.

Synopsis of Pediatrics by James G. Hughes, M.D. Pp. 1141. Illustrated. Price $14.50. St. Louis, The C. V. Mosby Company, 1971.

Speech Pathology by William H. Perkins, Ph.D. Illustrated. Pp. 449. Price $11.75. St. Louis, The C. V. Mosby Company, 1971.

Review of Medical Physiology by William F. Ganong, M.D. Pp. 573. Illustrated. Price $8.50. Los Altos, California, Lange Medical Publications, 1971.

The Human Heart—A Guide to Heart Disease. Second Edition by Brendan Phibbs, M.D. Pp. 247. 102 illustrations. Price $5.75. St. Louis, The C. V. Mosby Company, 1971.

Health Resources Statistics by U. S. Department of Health, Education, and Welfare. Pp. 362. Price $3.25. Washington, D. C., U.S. Government Printing Office, 1970.

Management of Juvenile Diabetes Mellitus, Second Edition by Howard S. Traisman, M.D. Pp.. 223. 62 illustrations. Price $19.75. St. Louis, The C. V. Mosby Company, 1971.

General Ophthalmology by Daniel Vaughan, M.D.; Taylor Asbury, M.D. and Robert Cook, M.D. Pp. 316. Illustrated. Los Altos, California, Lange Medical Publications, 1971.

The Understanding Physician by Charles D. Aring, M.D. Pp. 214. Price $8.95. Detroit, Wayne State University Press, 1971.

Dynamics of Violence edited by Jan Fawcett, M.D. Pp. 198. Price $3.95. Chicago, American Medical Association, 1971.

Teeth, Teeth, Teeth by Sydney Garfield, M.D. Pp. 448. Illustrated. Price $9.95. New York, Simon & Schuster, 1969.

Review of Physiological Chemistry by Harold A. Harper, Ph.D. Pp. 529. Illustrated. Price $8.00. Los Altos, California, Lange Medical Publications, 1971.

The Causes, Ecology and Prevention of Traffic Accidents by H. J. Roberts, M.D. Pp. 1016. Illustrated. Price $39.50. Springfield, Ill., Charles C. Thomas, Publisher, 1971.

Preventive Medicine in World War II by Medical Department, United States Army. Editor in chief, Colonel Robert S. Anderson, MC. Pp. 603. 84 illustrations. Price $8.00. Washington, D. C., Government Printing Office, 1969.

IN ASTHMA
IN EMPHYSEMA



optional therapy

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All Mudranes are bronchodilator-mucolytic in action, and are indicated for symptomatic relief of bronchial asthma, emphysema, bronchiectasis and chronic bronchitis. **MUDRANE tablets** contain 195 mg. potassium iodide; 130 mg. aminophylline; 21 mg. phenobarbital (Warning: may be habit-forming); 16 mg. ephedrine HCl. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions** are those for aminophylline-phenobarbital-ephedrine combinations. **Iodide side-effects:** May cause nausea. Very long use may cause goiter. Discontinue if symptoms of iodism develop. **Iodide contraindications:** Tuberculosis; pregnancy (to protect the fetus against possible depression of thyroid activity). **MUDRANE-2 tablets** contain 195 mg. potassium iodide; 130 mg. aminophylline. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions** are those for aminophylline. **Iodide side-effects and contraindications are listed above. MUDRANE GG tablets** contain 100 mg. glyceryl guaiacolate; 130 mg. aminophylline; 21 mg. phenobarbital (Warning: may be habit-forming); 16 mg. ephedrine HCl. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions** are those for aminophylline-phenobarbital-ephedrine combinations. **MUDRANE GG-2 tablets** contain 100 mg. glyceryl guaiacolate; 130 mg. aminophylline. **Dosage** is one tablet with full glass of water, 3 or 4 times a day. **Precautions:** Those for aminophylline. **MUDRANE GG Elixir.** Each teaspoonful (5 cc) contains 26 mg. glyceryl guaiacolate; 20 mg. theophylline; 5.4 mg. phenobarbital (Warning: may be habit-forming); 4 mg. ephedrine HCl. **Dosage:** Children, 1 cc for each 10 lbs. of body weight; one teaspoonful (5 cc) for a 50 lb. child. Dose may be repeated 3 or 4 times a day. Adult, one tablespoonful, 4 times daily. All doses should be followed with ½ to full glass of water. **Precautions:** See those listed above for Mudrane GG tablets.

MUDRANE—original formula
First choice

MUDRANE-2
When ephedrine is too exciting or is contraindicated

MUDRANE GG
During pregnancy or when K.I. is contraindicated or not tolerated

MUDRANE GG-2
A counterpart for Mudrane-2

MUDRANE GG ELIXIR
For pediatric use or where liquids are preferred

Clinical specimens available to physicians.

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Nothing new about Synirin other than ...it's a stable, uncoated, fast disintegrating tablet of aspirin with pentobarbital potentiating the aspirin analgesia.

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ASPIRIN 5 GR.—PENTOBARBITAL 1/8 GR.

ETHICAL ANALGESIA (economical if prescribed in 100 units with privilege of refills)

PRESCRIBING INFORMATION: To relieve tension headaches and arthritic pains, 2 tablets q 4 h. Aspirin and pentobarbital begin their action promptly, continuing for about 4 hours. The small pentobarbital content gives no perceptible sedation. Pentobarbital is destroyed by the body and there is no accumulation. Synirin will supply any aspirin therapy with equal safety. Use aspirin with caution in peptic ulcer.

EACH UNCOATED TABLET CONTAINS:

Aspirin 325 mg. (5 gr.)
Pentobarbital* 8 mg. (1/8 gr.)
*May be habit forming.

Federal law prohibits dispensing without prescription
DISPENSED IN BOTTLES OF 100 AND 1000 TABLETS

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A clinical supply of this new aspirin formulation may be requested.

APPLICATION FOR SCIENTIFIC EXHIBIT SPACE

Date _____

FLORIDA MEDICAL ASSOCIATION, INC.
98th Annual Meeting, May 3-7, 1972
Diplomat Hotel, Hollywood-by-the-Sea, Florida

Title of Exhibit _____

Category (please check): Scientific _____ Educational _____

Description (in 50 words or less) _____

Space Needed: Width _____ Depth _____

(All spaces are in units of 10 feet width and 8 feet depth)

If exhibit is smaller than 8 by 10 foot minimal space unit, please indicate dimensions:

Width _____ Depth _____

Name (s) of Exhibitor (s) _____

Your Name and Mailing Address _____

SEND APPLICATION BEFORE DEADLINE OF JANUARY 1, 1972 TO:
Thomas F. Raymond, M.D., Chairman
Committee on Scientific Assemblies
P. O. Box 2411, Jacksonville, Florida 32203

(Applicants will be notified of acceptance by January 31, 1972)

Florida Medical Association, Inc.
Summary of Actions of the Board of Governors
October 7-9, 1971

The following were among major actions of the Board of Governors during its fall meeting:

Made available, upon request by a county society, legal assistance to members wishing to initiate a court challenge of an attorney general's opinion that stated a conflict of interest exists when a physician serves on both the medical staff and the governing board of a county hospital.

Accepted, effective Nov. 1, Dr. Jere Annis' resignation as an AMA Delegate; and authorized an active campaign for the reelection of Dr. Annis to the AMA Board of Trustees next year.

Approved a proposed amendment to Division of Health Hospital Regulations encouraging medical staff representation on hospital governing boards where legally permissible.

Will convey to the appropriate government agency its concern that funds for Health Maintenance Organizations and experimental delivery systems have been dispensed without adequate consultation with physicians and hospital administrators and the hope this procedure will be corrected.

Received from James T. Cook, M.D., a proposal for implementing Resolution 71-4 (Corporation for Physicians' Negotiations); authorized the creation of a committee to study the proposal; and directed that the committee survey the FMA membership to determine the depth of interest in this concept.

Delayed further action in regard to FMA's petition for a federal investigation of Florida's Medicaid Program until a report from Region IV, Dept. of HEW office is received.

Declared it will not provide peer review of physician profiles for any state agency unless there is a formal contract. Maintained component society representation in the 1972 House of Delegates at the present ratio of one delegate per 40 members.

Heard a report that the Governor will appoint his Advisory Committee on Health recommended by the FMA in mid-November.

Designated the Council on Medical Services to study and make recommendations in regard to requests for FMA endorsement of National Health Service Corps physician assignments. Reaffirmed the policy that all members of specialty groups must be FMA members if the groups are to retain FMA recognition.

Authorized the Ad Hoc Committee on Drug Abuse to survey the membership, through an enclosure in a future issue of "Briefs," to determine their opinions on drug abuse.

Requested all county societies to establish drug abuse committees.

Refused to support legislation requiring a prescription for disposable needles and syringes; and disapproved the Committee's recommendation that legislation for a triplicate narcotics prescription program be introduced in the 1972 Legislature. The Board will make recommendations to the House of Delegates in May.

Advised Subcommittee on Workmen's Compensation to resume seeking improvements in the fee schedule when the wage-price freeze thaws out.

Asked Committee on State Legislation to consider clarification on language establishing ratios of physician's assistants to physicians in groups in the 1971 act establishing the physician's assistant program.

Called for AMA establishment of training standards for physician's assistants and AMA supervision of accreditation of these programs; and frowned upon national certification of these assistants.

Disapproved recommendations seeking a classification of membership for physician's assistants in AMA and FMA, with representation in the House of Delegates of the two organizations.

Ordered renewed efforts to establish liaison between the Committee on Law and the Florida Bar.

Refused to favor proposed federal legislation to license radiologic and nuclear medicine technologists.

Authorized an exchange of scientific speakers during 1972, pending approval of the Florida Orthopedic Society and the Florida Podiatry Association.

Approved professional liability legislative program to include bills to (1) exempt from liability acts of physicians resulting from their service on committees required under state or federal law; (2) permit advance payments to plaintiffs without admission of liability; and (3) to exempt proceedings of properly constituted hospital and medical society review committees from discovery, with Items 1 & 2 to be considered priority objectives.

Supported legislative efforts to maintain and strengthen a strong health agency in state government; opposed any move to reduce the effectiveness of the present state health program; and directed the FMA President to appoint a committee to work with the Committee on State Legislation in the matter of reorganizing state environmental control services.

Considered the Florida Pediatric Society's request for FMA support for creation of a separate State Division of Child Health and authorized referral of the proposal to the appropriate FMA committee for additional study.

Authorized the legislative chairman, in consultation with the FMA President and EVP, to refer matters of urgency to other FMA committees directly.

Adopted a revised policy relating to the activities of the FMA's "Doctor of the Day" during the 1972 legislative session.

Authorized the publication of a 1972 version of the pamphlet "FMA Legislative Objectives" with distribution to include all FMA members.

Ordered continued opposition to legislation for mandatory inclusion of chiropractic services in all health insurance policies; and reiterated support for legislation to reform Florida's abortion law.

Proposed a five-year moratorium on amending the endorsement and reciprocity provisions of the Medical Practice Act so that the results of the 1971 amendment can be analyzed.

Opposed any legislation that would recognize a "certificate of need" as the only criterion for authorization of health facilities construction.

Authorized cooperation with other professional societies in attempting to have disciplinary hearings of regulatory boards (e.g., Board of Medical Examiners) exempted from the "Government in the Sunshine Law."

Requested Committee on Government Programs to supply Committee on State Legislation factual data concerning Medicaid appropriations, with this information to be used in presentations to the Legislature, but not as a request for appropriations.

Took note of Health & Rehabilitative Services secretary Emmett Roberts' desire to establish better relationships with the FMA; and designated the Committee on Government Programs to provide this liaison.

Encouraged county medical societies to assume or maintain an active interest in Comprehensive Health Planning agencies in their areas.

Requested Blue Shield to expand its policy with regard to withholding and issuing participating physician numbers in effect for emergency room physicians to include all hospital-based physicians; and to withdraw numbers already issued to physicians found to be parties to unethical contracts with hospitals.

Directed that FMA not support proposed "Death with Dignity" legislation.

Authorized the Chairman of Government Programs to communicate with the Commissioner of Agriculture to advise the FMA is aware that Agriculture and Health are working together to resolve the problem of duplication of inspection services and that FMA is available for consultation and assistance.

Recommended the adoption and implementation of Resolution 71-24 (Medicare Program Benefits).

Authorized distribution, in summary form, of the minutes of Committee of 17 meetings to practicing physicians in Florida; and reminded physicians that committee members may be contacted with regard to problems with Blue Shield.

Directed that the 1971 Florida Relative Value Studies utilize the five-digit system and nomenclatures of AMA's Current Procedural Terminology and that the Studies incorporate the format and modifiers of the 1969 California Relative Value Studies.

Approved the new Relative Value Studies subject to further refinement by the Committee and authorized publication as soon as possible.

Directed that the Professional Liability Insurance program be continued on the basis of the understanding when the program was inaugurated.

Suggested that where appropriate, each county medical society establish a PLI committee, and where not appropriate the state committee will assist with local review of underwriting individual physicians and professional review of threatened claims.

Noted that foreign medical graduates will be underwritten for a maximum of $25,000-$75,000 unless they have completed an AMA-approved residency program in the U.S.; and that physicians engaged primarily in emergency room practice will be rated in the same category as general surgeons. Hospital based physicians will be considered for coverage only if they comply with FMA ethical criteria.

Favored practice of medicine on college campuses, including abortion counseling, in conformity to the standards, considerations and practices exercised by private practice in the surrounding community.

Requested the Committee on Scientific Assemblies to begin work immediately on a tentative program for 1973 as it relates to specialty groups.

Confirmed the selection of the following physicians for the consulting editorial staff of the Journal of FMA: William H. Martz (Dermatology); J. B. Williams (Ob.-Gyn.); Marvin A. Sackner (Chest Diseases); Richard A. Elias (Internal Medicine—Cardiology); and John M. Hamilton (Plastic and Reconstructive Surgery).

Referred to the Ad Hoc Committee on the Structure of the FMA the recommendation of the Council on Specialty Medicine that the Florida Thoracic Surgical Society be represented on the Council.

Mounted active opposition to the "integrated bar of medicine bill" which would make the Florida Medical Association an instrumentality of the Board of Medical Examiners.

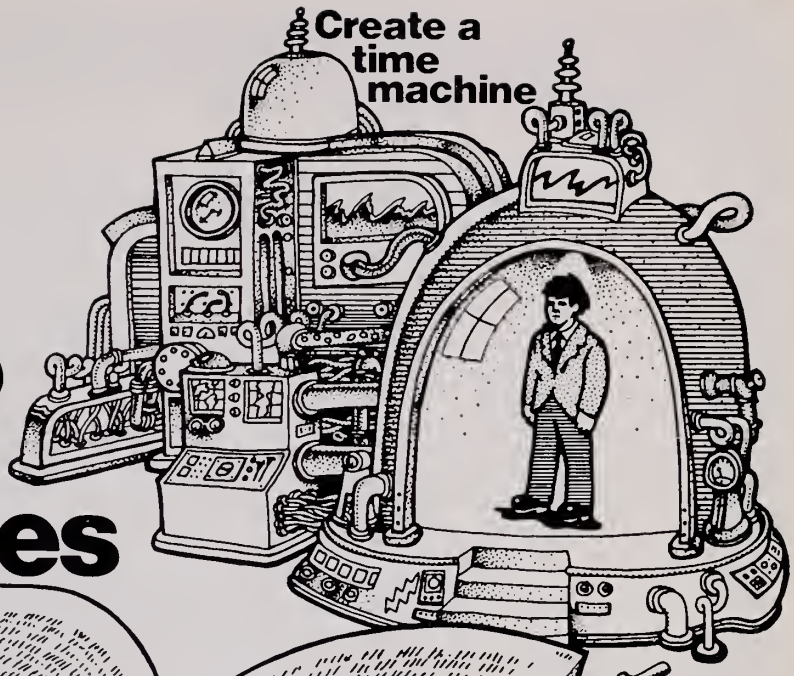
Supported legislation to recognize FMA's Committee on Membership and Discipline in the statutes as a duly constituted investigative branch of the Board of Medical Examiners.

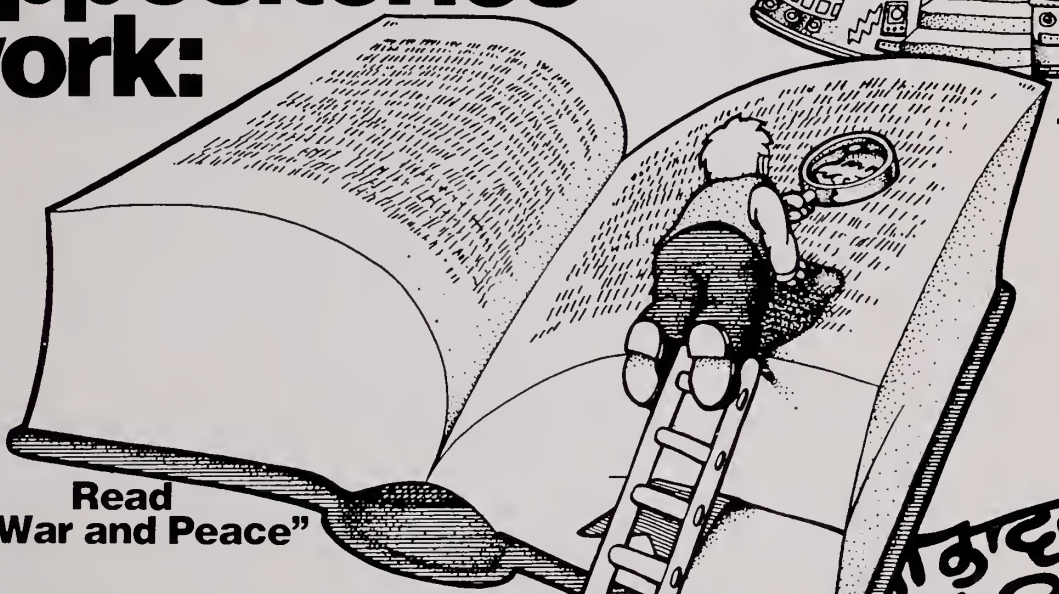
Annual Meeting Scientific and Educational Exhibits and Films

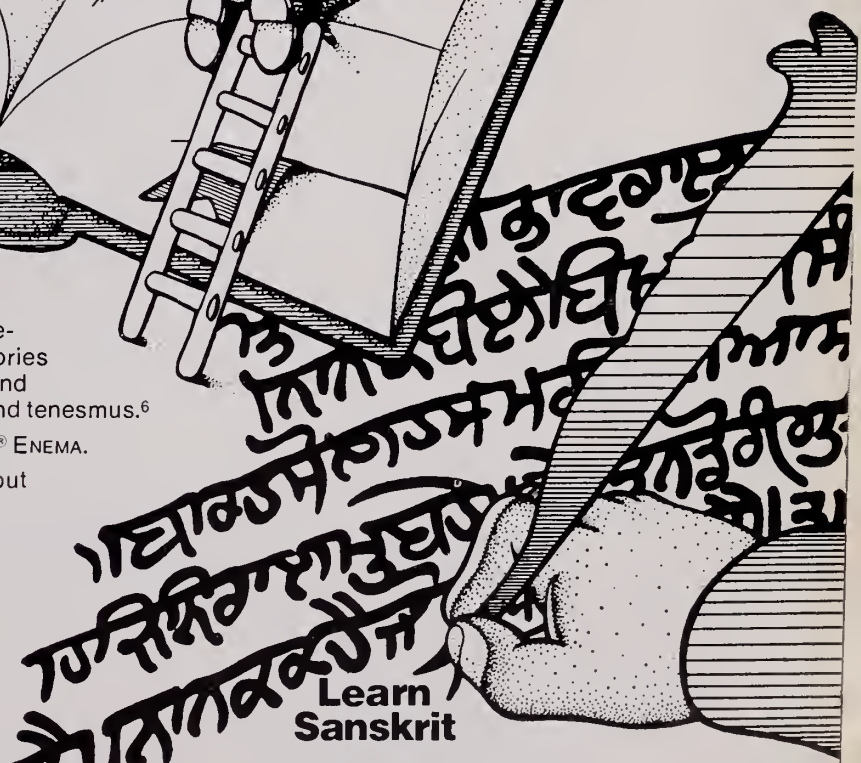
Applications are now being taken for presentation of scientific and educational exhibits at the 1972 Annual Meeting of the Florida Medical Association being held May 3-7 at the Diplomat Hotel, Hollywood-by-the-Sea. The deadline for all applications is January 1, 1972. For the convenience of Journal readers wishing to apply, a form which may be utilized for this purpose may be found on page 47 of this issue. Completed forms should be mailed to Thomas F. Raymond, M.D., Chairman, Committee on Scientific Assemblies, P.O. Box 2411, Jacksonville, Florida 32203.

Members interested in showing scientific films during the annual meeting are invited to submit descriptions to the Committee on Scientific Assemblies. Sponsors must have produced films themselves and must be present or have a designee present at the showing. If an adequate number of films is submitted, special times will be set aside on the program for this purpose.

What to do until suppositories work:







Actually, on the average, evacuant suppositories take about an hour to work.[1-3] Sometimes two.[4] Sometimes more.[3] Also, suppositories can be ineffective in up to 38% of patients,[5] and not infrequently produce smarting, burning and tenesmus.[6]

Alternative to the long unpleasant wait: FLEET® ENEMA.

FLEET ENEMA works within 2 to 5 minutes without pain or spasm. FLEET ENEMA induces a physiological pattern of evacuation, unlike purgatives and laxatives that may liquefy the stool. FLEET ENEMA avoids the irritation common with soapsuds enema. And FLEET ENEMA is leakproof: a rubber diaphragm at the base of the prelubricated tube prevents seepage and controls the rate of flow, assuring comfortable administration.

FLEET ENEMA. Regular and pediatric. Both completely disposable—like suppositories, only better. Much better.

Warning: Frequent or prolonged use of enemas may result in dependence. Take only when needed or when prescribed by a physician. Do not use when nausea, vomiting or abdominal pain is present. **Caution:** Do not administer to children under two years of age unless directed by a physician.

References: 1. Blumberg, N.: Med Times 91:45, Jan., 1963. 2. Sweeney, W. J., III: Amer J Obstet Gynec 85:908, Apr. 1, 1963. 3. Weinsaft, P.: J Amer Geriat Soc 12:295, Mar., 1964. 4. Baydoun, A. B.: Amer J Obstet Gynec 85:905, Apr. 1, 1963. 5. Feder, I. A., Flores, A. and Weiss, J.: Amer J Gastroent 33:366, Mar., 1960. 6. Smith, J. J. and Schwartz, E. D.: Western J Surg 72:177, May-June, 1964.

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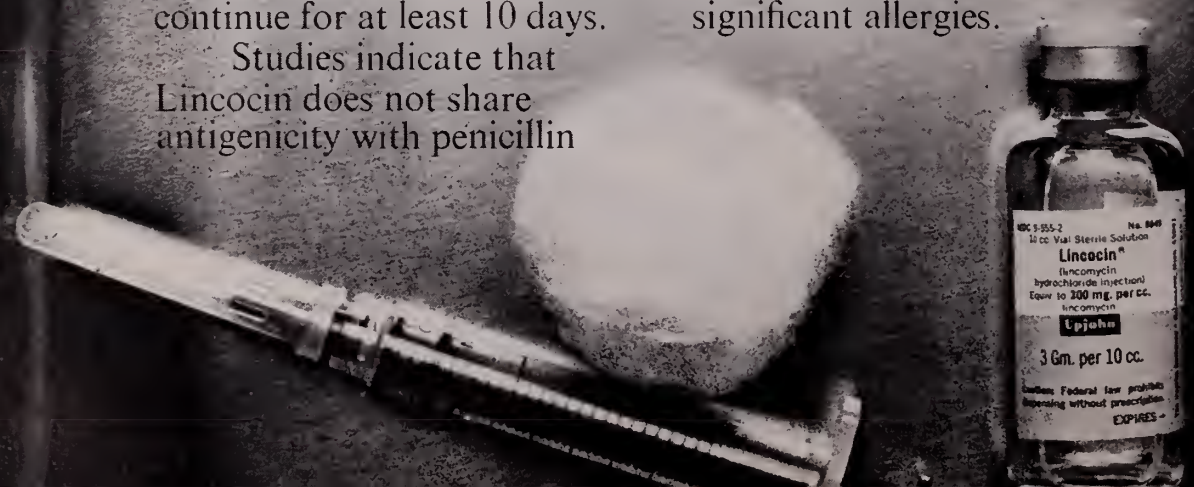
F19473

Hypersensitivity to penicillin is a good reason to consider Lincocin®

(lincomycin hydrochloride)

Lincocin (lincomycin hydrochloride, Upjohn) has produced a high percentage of satisfactory responses in patients with mild, moderate and severe infections due to susceptible streptococci, pneumococci and staphylococci (including many penicillinase-producing strains). With β-hemolytic streptococcal infections, treatment should continue for at least 10 days.

Studies indicate that Lincocin does not share antigenicity with penicillin compounds. However, hypersensitivity reactions such as angioneurotic edema, serum sickness and anaphylaxis have been reported, some of these in patients known to be sensitive to penicillin. As with any antibiotic, Lincocin (lincomycin hydrochloride, Upjohn) should be used cautiously in patients with histories of asthma or other significant allergies.



So is penicillin-resistant staph.

Lincocin (lincomycin hydrochloride, Upjohn) has been demonstrated to be effective in susceptible penicillinase-producing staphylococcal infections resistant to penicillin (including ampicillin). However, resistant staphylococcal strains have been recovered; resistance appears to occur in a slow stepwise manner. As with all antibiotics, susceptibility studies should be performed.

Intramuscular and intravenous injections of Lincocin (lincomycin hydrochloride, Upjohn) are generally well tolerated. Instances of hypotension following parenteral administration have been reported, particularly after too rapid intravenous administration.

Sterile Solution (300 mg. per ml.)

Lincocin®
(lincomycin hydrochloride, Upjohn)

For further prescribing information, please see following page.



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Sterile Solution (300 mg. per ml.)

Lincocin®

(lincomycin hydrochloride, Upjohn) for respiratory tract, skin, soft-tissue, and bone infections due to susceptible streptococci, pneumococci, and staphylococci

Each preparation contains:	Lincomycin hydrochloride monohydrate equivalent to lincomycin base
250 mg. Pediatric Capsule	250 mg.
500 mg. Capsule	500 mg.
*Sterile Solution per 1 ml.	300 mg.
Syrup per 5 ml.	250 mg.

*Contains also: Benzyl Alcohol 9 mg.; and, Water for Injection—q.s.

An antibiotic chemically distinct from others available, indicated in infections due to susceptible strains of staphylococci, pneumococci, and streptococci. *In vitro* susceptibility studies should be performed.

CONTRAINDICATIONS: History of prior hypersensitivity to Lincocin (lincomycin hydrochloride). Not indicated in the treatment of viral or minor bacterial infections.

WARNINGS: Cases of severe and persistent diarrhea have been reported and at times drug discontinuance has been necessary. This diarrhea has been occasionally associated with blood and mucus and at times has resulted in acute colitis. This reaction usually has been associated with oral therapy, but occasionally has been reported following parenteral therapy. Although cross sensitivity to other antibiotics has not been demonstrated, make careful inquiry concerning previous allergies or sensitivities to drugs. Safety for use in pregnancy has not been established and Lincocin is not indicated in the newborn. Reduce dose 25 to 30% in patients with severe impairment of renal function.

PRECAUTIONS: Like any drug, Lincocin should be used with caution in patients having a history of asthma or significant allergies. Overgrowth of nonsusceptible organisms, particularly yeasts, may occur and require appropriate measures. Patients with pre-existing monilial infections requiring Lincocin therapy should be given concomitant antimonilial treatment. During prolonged Lincocin therapy, periodic liver function studies and blood counts should be performed. Not recommended (inadequate data) in patients with pre-existing liver disease unless special clinical circumstances indicate. Continue treatment of β-hemolytic streptococci infection for ten days to diminish likelihood of rheumatic fever or glomerulonephritis.

ADVERSE REACTIONS: *Gastrointestinal*—Glossitis, stomatitis, nausea, vomiting. Persistent diarrhea, enterocolitis, and pruritus ani. *Hemopoietic*—Neutropenia, leukopenia, agranulocytosis, and thrombocytopenic purpura have been reported. *Hypersensitivity reactions*—Hypersensitivity reactions such as angioneurotic edema, serum sickness, and anaphylaxis have been reported, sometimes in patients sensitive to penicillin. If allergic reaction occurs, discontinue drug. Have epinephrine, corticosteroids, and antihistamines available for emergency treatment. *Skin and mucous membranes*—Skin rashes, urticaria, vaginitis, and rare instances of exfoliative and vesiculobullous dermatitis have been reported. *Liver*—Although no direct relationship to liver dysfunction is established, jaundice and abnormal liver function tests (particularly serum transaminase) have been observed in a few instances.



Cardiovascular—Instances of hypotension following parenteral administration have been reported, particularly after too rapid I.V. administration. Rare instances of cardiopulmonary arrest have been reported after too rapid I.V. administration. If 4.0 grams or more administered I.V., dilute in 500 ml. of fluid and administer no faster than 100 ml. per hour. *Local reactions*—Excellent local tolerance demonstrated to intramuscularly administered Lincocin. Reports of pain following injection have been infrequent. Intravenous administration of Lincocin in 250 to 500 ml. of 5% glucose in distilled water or normal saline has produced no local irritation or phlebitis.

HOW SUPPLIED: *250 mg. and 500 mg.* Capsules—bottles of 24 and 100.

Sterile Solution, 300 mg. per ml.—2 and 10 ml. vials and 2 ml. syringe.

Syrup, 250 mg. per 5 ml.—60 ml. and pint bottles.

For additional product information, consult the package insert or see your Upjohn representative.

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The Upjohn Company
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Upjohn


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Medical Licenses Granted

The Florida State Board of Medical Examiners report that of the 1,450 applicants who took the examination of the Board held July 25-27, 1971, at Miami Beach, 1,084 passed and have been issued licenses to practice medicine in Florida. The names, towns, medical school and year of graduation of the successful applicants follow:

Aaron, Roy K., Bethesda, Md. (State U. of N.Y., 1969)
Abdou, Fathy A., Virginia Beach, Va. (Ein-Shans U., 1957)
Abella-Fernandez, Manuel E., Coral Gables (Havana U., 1953)
Abello, Gustavo E., Chicago, Ill. (Havana U., 1951)
Abesada-Terk, Guillermo, Miami (Havana U., 1960)
Abisellan, Eduardo, Nashville, Tenn. (Havana U., 1960)
Abrahams, Jesse I., Woodmere, N.Y. (Cbicago M.S., 1949)
Abrams, Melvyn, Dallas, Texas (Indiana U., 1970)
Abramson, Neil, Jacksonville (Albert Einstein, 1963)
Acosta, Abelardo P., Gainesville (Havana U., 1961)
Acosta-Rua, Gaston J., Iowa City, Ia. (Madrid U., 1963)
Adams, Peter X., New York, N.Y. (New York U., 1969)
Adelman, Howard, Merrick, N.Y. (Leyden U., 1957)
Adelson, Edward R., Williston Park, N.Y. (Tufts, 1937)
Aderholt, Harry C., Birmingbam, Ala. (Alabama U., 1964)
Aftonomos, Lefkos T., Omaha, Neb. (Nebraska U., 1959)
Agramonte, Gonzalo R., Hollywood (Havana U., 1943)
Ahmad, Iftikhar, Pontiac, Mich. (Nisbtar M.C., 1959)
Aiache, Adrien E., New Rocbelle, N.Y. (Toulouse U., 1954)
Albert, William C., Rockville, Md. (Case Western Reserve, 1969)
Alexander, James M., Monroe, Conn. (Seton Hall, 1963)
Alldredge, Carl B., New Orleans, La. (Tulane, 1970)
Almond, Charles M., Miami (North Carolina U., 1970)
Alvarez, Diosdada, Miami (Havana U., 1960)
Alvarez, Francisco L., Miami (Havana U., 1948)
Alvarez, Manuel R., Miami (Miami U., 1970)
Alvarez, Raul, Miami (Madrid U., 1968)
Amoedo, Jose M., Cleveland, Ohio (Havana U., 1940)
Andersen, Holger M., Strawberry Point, Ia. (Iowa U., 1934)
Andersen, Kenneth N., Central Point, Ia. (Jobns Hopkins, 1949)
Appelman, David H., Brooklyn, N.Y. (U. of Cbicago, 1934)
Aristigueta, Narciso, Baltimore, Md. (Havana U., 1954)
Artime, Manuel E., Decatur, Ga. (Havana U., 1946)
Atchoo, Nathima H., Jersey City, N.J. (Baghdad U., 1955)
Atchoo, Peter D., Jersey City, N.J. (Baghdad U., 1953)
Atkinson, Karl S., Washington, D.C. (Howard, 1969)
Atkinson, William W., Tarpon Springs (Jefferson, 1963)
Autorino, Ralph R., Montclair, N.J. (New York U., 1942)
Aylward, Theodore D., Cincinnati, Obio (Wayne State, 1967)
Azar, Si H., Columbia, S.C. (Tehran, 1961)

Babcock, Paul W., Livonia, Mich. (St. Louis U., 1958)
Baise, George R., Winchester, Mass. (West Virginia U., 1964)
Baker, Norman H., Columbus, Ohio (Ohio State, 1954)
Bakst, Stewart R., Miami (U. of Miami, 1970)
Bakule, Paul T., New Orleans, La. (U. of Illinois, 1965)
Balakrishna, Hanumathaiah, Bronx, N.Y. (Medical College, Mysore India, 1963)
Ballentine, Ralph E. II, Atlanta, Ga. (Emory, 1970)
Barash, Bernard, Pittsburgb, Pa. (U. of Cbicago, 1950)
Barata, Joseph R., Little Neck, N.Y. (Havana U., 1956)
Bardack, Richard A., Jacksonville (Georgetown, 1968)
Barden, Robert E., Orlando (Tulane, 1970)
Barkin, Jamie S., Miami Beach (U. of Miami, 1970)
Barnes, Henley N., Springfield, Ill. (Nortbwestern, 1948)
Barranda, Guerrero A., Carborro, N.C. (Far Eastern U., 1965)
Barrios, Ivan J., Miami (U. of Salamanca, 1964)
Barry, Francis E., Lynnfield, Mass. (Tufts, 1946)
Basch, Samuel H., New York, N.Y. (Hahnemann, 1961)
Bason, William M., Philadelphia, Pa. (State U. of N.Y., 1957)
Bass, Andrew C., Jacksonville (U. of Florida, 1970)
Battaglia, Frank, Brooklyn, N. Y. (Buenos Aires U., 1959)
Bauer, Richard M., Hollywood (New Jersey M. C., 1968)
Beauchamp, Kim, Brooklyn, N.Y. (Woo Sok U. Korea, 1970)
Becker, Arnold H., Bristol, Conn. (U. of Vermont, 1943)
Becker, Clara S., Miami Beach (Havana U., 1947)
Bedoya-Garcia, Ricardo, Jacksonville (Javeriana U., 1965)
Behrend, Albert, Pbiladelphia, Pa. (U. of Pennsylvania, 1932)
Behroozi, Hooshang, New York, N.Y. (U. of Tehran, 1957)
Bejar, Jacobo, Bronx, N.Y. (Havana U., 1959)
Belamaric, John, Detroit, Mich. (U. of Buenos Aires, 1959)
Bell, John W. Jr., Tampa (U. of S.C., 1970)
Belmont, Herman S., Elkins Park, Pa. (U. of Pennsylvania, 1943)
Belsbe, Joseph C., St. Cloud, Minn. (U. of Minnesota, 1946)
Bencomo, Pedro M., Miami (Havana U., 1951)
Benites, Roberto, Sayreville, N.J. (U. of Montevideo Uruguay, 1961)
Benoit, Charles V., Woodbury, N.Y. (U. of Haiti, 1960)
Benoit, Roger L., Orlando (St. Louis U., 1969)
Berdick, Kenneth A., Miami (U. of Florida, 1970)
Berger, Maurice M., Brooklyn, N.Y. (U. of Bologna, 1962)
Berger, Morton, Hicksville, L. I., N.Y. (Long Island M.C., 1938)
Bergman, Justin A., Staten Island, N.Y. (Hahnemann, 1969)
Berk, Nathaniel G., Elkins Park, Pa. (U. of Pennsylvania, 1935)
Berkowitz, Howard J., Bayonne, N.J. (Georgetown, 1967)
Bernardo, John R. Jr., Barrington, R.I. (Tufts, 1953)
Bernhardt, Donald R., Dallas, Texas (New York U., 1945)
Berry, Neil C., Miami (Emory, 1970)
Besozzi, Myrwood C., Miami (U. of Miami, 1970)
Bezjian, Alex A., Fort Lauderdale (U. of Beirut, 1967)
Biliskis, Albert G., Elmhurst, Ill. (U. of Illinois, 1948)
Bishai, Samy F., Detroit, Mich. (Alexandria U., 1964)
Bivins, Benjamin L., Ann Arbor, Mich. (Emory, 1965)
Black, Curtis J., Port St. Lucie (U. of Minnesota, 1968)
Black, Franklin O., Gainesville (U. of Missouri, 1963)
Black, John K. Jr., Huntsville, Ala. (Alabama M.C., 1963)
Bladowski, John R., Homestead (U. of Cincinnati, 1964)
Blasco, Isabel M., New York, N.Y. (Havana U., 1946)
Blasco, Raymond M., Erie, Pa. (U. of Pittsburgh, 1955)
Bloom, Morris J., Flushing, N.Y. (New York M.C., 1930)
Bodie, Charles W., Mobile, Ala. (Alabama M.C., 1969)
Bohsali, Ibrahim, Bladensburg, Md. (French M.S., Lebanon, 1964)
Bolooki, Hooshang, Miami (Tehran, 1960)
Bomhard, James S., Jacksonville (Tulane, 1970)
Bonagua, Leo D., South Charleston, W. Va. (Far Eastern U., 1963)
Bone, Robert C., Jacksonville (Vanderbilt, 1962)

Borenstein, Marvin, Westbury, N.Y. (New York U., 1951)
Bortner, Seymour R., New York, N.Y. (Chicago M.S., 1960)
Botas, Modesto, Pasadena, Texas (Havana U., 1953)
Bourque, Robert G., Portsmouth, Va. (St. Louis U., 1966)
Bove, Joseph M., Yonkers, N.Y. (New York M.S., 1943)
Bowen, Robert W., Tampa (U. of Virginia, 1970)
Bowman, Joseph R., Johnson City, Tenn. (Vanderbilt, 1933)
Bowyer, John V., Roanoke, Va. (U. of Virginia, 1956)
Boyle, Carrol L., Wadesville, Ind. (Indiana U., 1952)
Boyle, Eugene H., Gross Pte. Woods, Mich. (Northwestern, 1958)
Boysen, Philip G., Gulf Breeze (Loyola, 1969)
Branciforte, Roberto, Gainesville (National U. of Cuyo, 1965)
Braunstein, Stewart M., Brooklyn, N.Y. (U. of Bologna, 1968)
Brennen, Patrick F., Daytona Beach (U. of Madrid, 1969)
Brenner, Hugo A., Louisville, Ky. (U. of San Marcos, 1958)
Briggs, James N., St. Petersburg (U. of Freiburg, 1960)
Brishuela, Quintin G., Miami Beach (Havana U., 1943)
Brown, Vincent C., Maitland (U. of Florida, 1970)
Bruno, Andrew F., Pittsburgh, Pa. (U. of Pittsburgh, 1967)
Brunson, Bruce C., Memphis, Tenn. (U. of Tennessee, 1965)
Bucci, Robert J. F., Houston, Texas (Baylor, 1952)
Bucher, Robert L. Jr., Warner Robins, Ga. (U. of Minnesota, 1969)
Bueno-Velasquez, Edgar, FPO New York (San Marcos U., 1965)
Bultman, Richard J., Orange Park (U. of Michigan, 1969)
Burgert, Woodward Jr., New York, N.Y. (Cornell, 1963)
Burness, Sidney H., Hartford, Conn. (U. of Vermont, 1938)
Burnett, Joseph W., Baltimore, Md. (Harvard, 1958)
Burstein, Frank, Philadelphia, Pa. (Hahnemann, 1953)
Buttafuoco, James P., Garden City, N. Y. (State U. of N.Y., 1954)

Cabrera, Tomas A., Miami (U. of Madrid, 1968)
Cain, James L., Nashville, Tenn. (Tulane, 1965)
Calderon, Julio, Oak Lawn, Ill. (St. Andrew's M.S., 1965)
Caldwell, Jacques R., Gainesville (Johns Hopkins, 1964)
Calilhanna, Pierre, Hampton, Va. (St. Joseph U., 1961)
Calleja, Amos B., Macclenny (Far Eastern U., 1965)
Callen, Irwin R., Evanston, Ill. (U. of Illinois, 1943)
Cameron, Robert B., Dumont, N.J. (U. of Michigan, 1962)
Campese, Banjamin, Douglaston, N.Y. (U. of Bologna, 1962)
Candal, Alfredo R.V.L., Kingston, Pa. (U. of Buenos Aires, 1960)
Cannon, Wayne D. Jr., Scarborough, Station, N.Y. (Columbia, 1963)
Canosa-Lorenzo, Francisco M., Coral Gables (U. of Paris, 1939)
Cantor, Bernard, Rochester, N.Y. (U. of Rochester, 1968)
Cantor, Sherwood R., Miami (State U. of N.Y., 1969)
Cao, Francisco A., Miami (Havana U., 1943)
Capella, Rafael F., Tuxedo Park, N.Y. (Javeriana U., 1958)
Caress, Donald L., Charleston, S. C. (Johns Hopkins, 1963)
Carey, F. Taimour, Brookville, N.Y. (Tehran, 1957)
Carmel, Philip D., Brooklyn, N.Y. (Long Island College, 1930)
Carnes, Raymond E., New York, N.Y. (George Washington U., 1950)
Carraway, Robert D., Miami (Columbia, 1966)
Carreno, Cenaida C., Coral Gables (Madrid, 1962)
Carstensen, Vincent H., Waverly, Ia. (U. of Iowa, 1939)
Casden, Daniel D., Valley Stream, N.Y. (State U. of N.Y., 1945)
Castellano, Giuseppe C., Orlando (U. of Bologna, 1962)
Castellano, Nelson D., Miami (U. of Miami, 1970)
Castellanos, Jaime A., Philadelphia, Pa. (National U., S.A., 1964)
Castilla, William, Paterson, N.J. (U. of Cartagena, S.A., 1966)
Castillo, Fausto P., Evanston, Ill. (U. of Santo Domingo, 1967)
Castillo, Juan F., Union City, N.J. (Havana U., 1962)
Capulong, Rene A., Miami (U. of Santo Tomas, 1963)
Castro, Alfredo W., Greystone Park, N. J. (Havana U., 1953)
Castro, Osvaldo S., Tampa (Havana U., 1945)
Caudle, John A., Gretna, La. (Bowman Gray, 1967)
Cauthen, Don B., Miami (U. of Texas, 1970)
Cazares-Zavala, Jose, Somerville, Mass. (U. of Mexico, 1962)
Charles, John J., Key Biscayne (State U. of N. Y., 1953)
Chalon, Jack, Irvington on Hudson, N. Y. (U. of London, 1946)
Charlton, Mary F., Miami (U. of Michigan, 1970)
Cheung, Roland F., Troy, N.Y. (National Taiwan U., 1962)
Childers, Richard C., Coral Gables (U. of Rochester, 1969)
Chiong, Violeta B., Homestead (U. of Santo Tomas, 1963)
Ciampa, Vincent, Cuba, N. Y. (U. of Buffalo, 1950)
Cibula, Lawrence M., Pensacola (Ohio State, 1968)
Civitella, Thomas R., West Hempstead, N.Y. (U. of Ottawa, 1965)
Cloninger, Timothy E., Coral Gables (U. of N.C., 1966)
Coggin, Julian T., Columbus, Ga. (Loma Linda U., 1962)
Cohen, Clifford, Brooklyn, N. Y. (Loyola, 1945)
Cohen, Herbert E., Philadelphia, Pa. (Hahnemann, 1967)
Cohen, Irwin J., Wayne, N.J. (State U. of N.Y., 1961)
Cohen, Isaac C., Glen Oaks, Queens, N.Y. (U. of Chile, 1969)
Cohen, Isaac I., West Palm Beach (New York M. C., 1932)
Cohen, Leonard M., Pittsburgh, Pa. (U. of Pittsburgh, 1950)
Cohen, Robert E., Springfield, Mo. (U. of Pennsylvania, 1965)
Cohler, Alan, Abington, Pa. (U. of Pennsylvania, 1970)
Colarusso, Calvin A., Melrose Park, Pa. (Jefferson M. C., 1961)
Cole, Frank R., Great Neck, L.I. (U. of California, 1936)
Colella, James W., Fort Lauderdale (Syracuse U., 1929)
Coles, John W. Jr., Philadelphia, Pa. (Temple, 1955)
Colgan, Diane L., Bethesda, Md. (Woman's M.C. of Pennsylvania, 1967)
Colin, Clifford D., New York, N.Y. (U. of Cincinnati, 1970)
Comesana, Armando B. G., Petersburg, Va. (Havana U., 1921)
Consuegra, Edgardo A., Miami (Javeriana M. S., 1964)
Conti, John S., Youngstown, Ohio (U. of Louvain, 1967)
Contin, Juan U., Garnerville, N.Y. (Santo Domingo, 1960)
Cook, James T. III, Panama City (Emory, 1969)
Cook, Thomas L. III, Jacksonville (U. of Alabama, 1970)
Cooney, Edward A., Newton Highlands, Mass. (Harvard, 1926)
Cooper, Gary R., Metairie, La. (Tulane, 1969)
Cornish, James A., Storm Lake, Ia. (Creighton U., 1943)
Cortese, Philip T., Amsterdam, N.Y. (Georgetown, 1945)
Cosma, Guillermo W., Clearwater (National U. of Argentina, 1963)
Cosmides, James C., Miami Springs (West Virginia U., 1967)
Cowden, Charles M., Madison, Tenn. (U. of Tennessee, 1956)
Cox, Charles E., Gainesville (U. of Florida, 1968)
Crane, Donald J., Miami (U. of Miami, 1970)
Creed, Jere D., Coral Gables (U. of Miami, 1970)
Crespo, Alejandro, Coral Gables (Havana U., 1941)
Crittenden, Frank M. Jr., Portsmouth, Va. (Tulane, 1962)
Croutcher, Donald L., Eglin AFB (U. of Kentucky, 1966)

Cuadrado, Angel R., Chattahoochee (U. of Paris, 1941)
Cunningham, Calhoun D., Gainesville (U. of S.C., 1966)
Curbelo-Cabrera, Maria C., Miami (Havana U., 1952)
Cusmano, Joseph V., Oradell, N. J. (State U. of N. Y., 1947)

d'Adesky, Chantal, Miami (U. of Madrid, 1964)
D'Agrosa, Joseph, Patchogue, L.I., N.Y. (Long Island M.C., 1952)
Daman, Harlan R., Goldsboro, N.C. (Albert Einstein, 1967)
Damien, Natalio, Little Silver, N.J. (Havana U., 1951)
D'Angelo, Joseph V., Lyndhurst, Ohio (St. Louis U., 1968)
Daniel, Enrique F. R., Birmingham, Ala. (U. of Salamanca, 1968)
Danoff, Dudley S., Great Neck, N.Y. (Yale, 1963)
Davidson, Donald R. II, Ilion, N.Y. (Syracuse U., 1946)
Davis, Robert D., Naples (U. of Oregon, 1964)
Decker, Albert I., Cocoa Beach (U. of Kansas, 1944)
DeCourcy, Donald M. Jr., San Antonio, Texas (U. of Minnesota, 1967)
Dee, Ronald, White Plains, N. Y. (U. of Cambridge, 1951)
Deisseroth, Albert B., Brighton, Mass. (U. of Rochester, 1970)
De La Fe, Carlos, Miami (Havana U., 1957)
Delaney, John R., Westwood, N.J. (U. of Ottawa, 1959)
Delashmutt, Robert E., Atlanta, Ga. (George Washington, 1949)
Delatush, George A., Tequesta (Long Island M. C., 1943)
Del Campo, Constantino C. R. A., Charleston, S. C. (U. of Havana, 1963)
Del Marmol, Jose G., Miami (Havana U., 1943)
Del Rio, Francisco J., Chattahoochee (Havana U., 1940)
Demirag, Husnu M., Bronx, N.Y. (U. of Istanbul, 1954)
De Oro, Fructuoso R., Miami (Havana U., 1944)
Deutsch, Paul G., New York, N.Y. (New York U., 1970)
Devincentis, Louis A., Delray Beach (U. of Buffalo, 1938)
Devine, John J. Jr., Potomac, Md. (Georgetown, 1965)
Devlin, Paul J., New York, N.Y. (State U. of N.Y., 1941)
Devore, Paul A., Potomac, Md. (U. of Maryland, 1960)
Diamond, Michael H., South Euclid, Ohio (U. of Cincinnati, 1965)
Diaz, Adalberto R., Miami (Havana U., 1952)
Di Biase, Matthew A., Miami (U. of Bologna, 1965)
Dickey, Stephen F., Tampa (Indiana U., 1970)
Dietz, George F., Granite City, Ill. (Loyola, 1956)
Dinot, James V., Columbus, Ohio (Ohio State, 1958)
Di Pasquale, Joseph A., Rochester, Minn. (Georgetown, 1963)
Distelhorst, Ronald A., Key West (U. of Iowa, 1968)
Dobal, Manual T., Miami (Havana U., 1937)
Dobbin, Dean I., Flushing, N.Y. (State U. of N.Y., 1969)
Dominici, Raymond H., Key West (Hahnemann, 1965)
Donnelly, William H. Jr., Gainesville (U. of Ottawa, 1963)
Donshik, Gary R., Reston, Va. (New York M. C., 1966)
Dooley, Paul I. Arcade, N.Y. (U. of Buffalo, 1937)
Dopico, Jose M., Miami (Havana U., 1957)
Dopico, Leonor D., Miami (Havana U., 1957)
Dopson, Gary, Glen St. Mary (U. of Florida, 1970)
Doss, Riad K., St. Louis, Mo. (Ein-Shams U., 1957)
Doublier, Marcel R., Miami (U. of Miami, 1970)
Douglas, Harlan N., Pittsburgh, Pa. (U. of Pittsburgh, 1951)
Doval, Nelson, Miami (Havana U., 1960)
Doyle, Edward T., Melville, N.Y. (New York M.C., 1961)
Dreilinger, Clark L.J., San Antonio, Texas (U. of Louisville, 1968)
Drelich, David, Jersey City, N. J. (U. of Lausanne, 1960)
Duga, Judith D., New York, N.Y. (Woman's M.C. of Pennsylvania, 1968)
Dunaway, Rodney P., Winter Park (U. of Miami, 1963)
Dvorak, Paul F., Warrenton, Va. (U. of Illinois, 1966)
Dyke, David S., Kalamazoo, Mich. (Ohio State, 1969)
Dzubaty, Michael, West Haven, Conn. (Buffalo M. S., 1948)

Eakins, Joey W., Jacksonville (Bowman Gray, 1970)
Earle, Brian V., Little Falls, N.Y. (U. of Dublin, 1944)
East, William W. Jr., Miami Springs (U. of Mississippi, 1967)
Easton, William S., Brookline, Mass. (Chicago M. S., 1945)
Eckart, Dieter H., Miami (U. of Munich, 1961)
Economides, Chris G., Miami (Alexandria U., 1965)
Eddy, James H. Jr., Shreveport, La. (Tulane, 1938)
Edinburgh, Alfred, Great Neck, L. I., N. Y. (Columbia, 1951)
Efron, Joseph, Florissant, Mo. (M. C. of South Carolina, 1948)
Ehrlich, Michael G., Fort Lee, N.J. (Columbia, 1963)
Eichenbaum, Daniel M., Miami (Yale, 1969)
Eisenberg, Thomas J., Miami (U. of Miami, 1970)
El-Attar, Osamah A., Cleveland, Ohio (Cairo U., 1955)
Elaty, Farouk H. A. Providence, R.I. (Ein Shams U., 1954)
Eliot, Gail R., Bloomfield, N.J. (New Jersey M. C., 1967)
Enis, Jerry E., Miami (Temple, 1964)
Epstein, Bernard D., Cleveland, Ohio (Columbia, 1949)
Erbesfeld, Marvin H., Miami (U. of Miami, 1970)
Erickson, Eric R., Allison Park, Pa. (U. of Western Ont., 1954)
Ersay, Ronald E., New Orleans, La. (U. of Miami, 1970)
Escano-Rodriguez, German G., Fort Ord, Calif. (U. of Cartagena, 1962)
Essman, Richard A., Memphis, Tenn. (U. of Tennessee, 1962)
Esterson, Joseph B., Philadelphia, Pa. (U. of Maryland, 1969)
Estrada, Carlos M., Miami (Havana U., 1959)
Evangelakis, Miltiades G., Hollywood (Thessaloniki U., 1955)
Evans, Joseph B., Philadelphia, Pa. (Hahnemann, 1944)

Fabrizio, Rudolph, West Islip, N.Y. (New York U., 1955)
Faraldo, Anthony R., Miami (Georgetown, 1966)
Fargher, John T., Tampa (Indiana U., 1970)
Farmer, Donald E., Beaufort, S.C. (West Virginia U., 1965)
Fawcett, Kenneth J., South Bend, Ind. (Michigan U., 1961)
Fecsik, Alfonz I., Euclid, Ohio (Debrecen U., 1956)
Feinberg, Harry, Richmond Hill, N.Y. (New York M.C., 1933)
Feirtag, Mary K., Tampa (Marquette, 1970)
Feldman, Ira M., Columbia, S.C. (State U. of N.Y., 1966)
Ferguson, James A., Grand Rapids, Mich. (Michigan U., 1939)
Ferguson, James F. III, Miami (Tulane, 1969)
Ferlinz, Jack, Miami (Boston U., 1969)
Fernandez-Gonzalez, Manuel A., Miami (Santiago U., Spain, 1967)
Fernandez-Llanes, Jose M., Miami (Havana U., 1937)
Ferreiro, Julio E., Miami (Havana U., 1960)
Fezza, Michael L., North Haven, Conn. (New York M.C., 1954)
Fieber, Mack H., New York, N.Y. (Louisville U., 1940)
Fields, Michael S., New York, N.Y. (U. of Miami, 1970)
Finnerty, James J., Patchoque, N.Y. (Columbia, 1943)
Fiorello, Joseph M., Trenton, N.J. (Jefferson M.C., 1952)
Fireman, Alfred E., Providence, R. I. (Tufts, 1956)
Firestone, Frederick, Middle Village, N.Y. (Vienna U., 1937)
Fischer, Daniel G., Hamden, Conn. (Vermont U., 1957)
Fisher, George H. Jr., San Antonio, Texas (Alabama U., 1970)
Fitzgerald, George P., Marco (Ohio State, 1942)
Flandermeyer, Paul B., Orange Park (Alabama U., 1969)
Flax, Ellis, Cape Coral (Cincinnati U., 1935)
Fleegler, Bruce M., Miami (Pennsylvania U., 1969)
Florez, Luis R., Columbus, Ga. (Santiago U., Spain, 1967)
Florin, Reimundo E., Miami (Havana U., 1952)
Foley, William T., New York, N.Y. (Cornell, 1937)
Fontana, Frank L., Pittsburgh, Pa. (Pittsburgh U., 1954)
Foregger, Richard, Milwaukee, Wis. (Marquette, 1938)
Forman, Walter H., Fort Lauderdale (U. of Florida, 1970)

Forrestal, Thomas P., McConnelsville, Ohio (Marquette, 1958)
Forstot, Stephen L., Chicago, Ill. (Johns Hopkins, 1969)
Forsyth, Robert L., Freeport, Bahamas (U. of Pittsburgh, 1943)
Foss, David E., Pittsburgh, Pa. (U. of Michigan, 1954)
Foster, Larry J., Pensacola (U. of Tennessee, 1970)
Fox, Leonard, Roslyn, N.Y. (State U. of N.Y., 1950)
Fox, Lester, Fort Lee, N.J. (New York M.C., 1940)
Fox, Theodore W., Fair Haven, N.J. (Albany M.C., 1942)
Franco, Braulio O., Virginia Beach, Va. (Havana U., 1960)
Franklin, Joseph E. Jr., Homestead AFB (New Jersey M.C., 1967)
Freeman, Malcolm C., Oak Park, Ill. (London U., 1968)
Freiberg, Fritz-Eckart, Hollywood (U. of Erlangen, 1952)
Frey, John J. III, Miami (Northwestern, 1970)
Fried, Carol A., Tierra Verda (Woman's M.C. of Pennsylvania, 1964)
Friedenberg, Barry, Flushing, N. Y. (Georgetown, 1968)
Friedler, Stanley, Bossier City, La. (U. of Maryland, 1965)
Funk, Sidney A., New York, N. Y. (M.C. of Georgia, 1966)
Furgang, Fred. A., Far Rockaway, N.Y. (Columbia, 1970)
Fuxa, Jorge G., Baltimore, Md. (Havana U., 1947)

Gahagan, Thomas G., Newark, Ohio (U. of Pennsylvania, 1964)
Galarraga, Yolanda R. D., Miami (Havana U., 1951)
Galatas, Lorenzo, Kirbyville, Texas (Havana U., 1945)
Gallagher, John R., Cinnaminson, N. J. (Hahnemann, 1955)
Ganapolsky, Israel, Guaynabo, P.R. (Havana U., 1959)
Garber, Harold E., Missouri City, Texas (Washington U., 1964)
Garcia, Augustin, Miami (Havana U., 1951)
Garcia, Leoncio A., Staunton, Va. (Havana U., 1947)
Garcia, Luis, Pasadena, Texas (Havana U., 1946)
Garcia-Marin, Angel R., New Orleans, La. (U. of Barcelona, 1963)
Garcia-Mullin, Ricardo G., Miami (U. of Republic-Uruguay, 1960)
Garritano, Anthony P., Rosemont, Pa. (Hahnemann, 1948)
Gastesi, Roman A., Detroit, Mich. (U. of Madrid, 1962)
Geada, Rene H., Hialeah (Havana U., 1945)
Gelband, Henry, Miami (Jefferson M.C., 1962)
Gens, John P., New Canaan, Conn. (Yale, 1937)
Gentile, Joseph P., Pensacola (U. of Miami, 1970)
Gentry, Jean W., Tallahassee (U. of Texas, 1955)
George, Walter L., Willowick, Ohio (Case Western Reserve U., 1942)
George, William R. II, Miami (U. of Miami, 1970)
Gerami, Sohrab, Houston, Texas (Shiraz Medical School, 1962)
Gerscovich, Eugenio A., Brooklyn, N.Y. (Buenos Aires U., 1961)
Ghahramani, Ali R., Miami (Tehran, 1956)
Ghaleb, Boutros F., Miami Beach (Ein-Shams U., 1965)
Gibbs, Charles P., Miami (Indiana U., 1962)
Gibstein, Alan, Great Neck, N.Y. (Hahnemann, 1960)
Giglio, Alphonsus S., North Miami Beach (Tulane, 1921)
Giles, Charles H., Birmingham, Ala. (Loma Linda U., 1965)
Giles, Stanley A., Chattanooga, Tenn. (Loma Linda U., 1966)
Gill, Dee D., Seminole (Indiana U., 1937)
Gilmore, Robert W., Durham, N.C. (Duke, 1971)
Gilmour, Kay E., Jacksonville (U. of Florida, 1967)
Gilstrap, Larry C. III, San Antonio, Tx. (U. of Miami, 1970)
Ginsburg, Abraham, Philadelphia, Pa. (Temple, 1943)
Glickstein, Andrew M., Surfside (Johns Hopkins, 1970)
Goberville, Thomas J., Miami (Northwestern, 1970)
Godley, David R., Point Mugu, Calif. (California M.C., 1969)
Godwin, Charles W., Fort Dix, N.J. (U. of Texas, 1965)
Gold, Saul, Dobbs Ferry, N.Y. (New York M.C., 1968)
Goldberg, Howard M., Miami (Emory, 1970)
Goldblatt, Sidney A., Johnstown, Pa. (Temple U., 1959)
Golden, Emanuel L., Lawrence, L. I., N. Y. (Chicago M. S. 1953)
Gonzalez, Celerina N., La Grange, Ill. (Havana U. 1943)
Gonzalez, Manuel, Larned, Kansas (Havana U., 1956)
Goodgold, Joseph, New York, N. Y. (Middlesex U., 1945)
Goodman, Albert L., E. Rockaway, N. Y. (New York M. C., 1946)
Goodman, Eli, Charlestown, Ind. (Tufts, 1938)
Goodman, Kenneth, East Orange, N. J. (Columbia, 1938)
Goodman, Morris, Binghamton, N. Y. (U. of Rochester, 1950)
Goodrich, James T., Tampa (Wayne State, 1970)
Goss, Seymour, Tamarac City (U. of California, 1966)
Gottlieb, Jack H., Miami (Medical College of S. C., 1966)
Grais, Lea M., Cincinnati, Ohio (U. of Illinois, 1964)
Gray, Cyrus L., III, Danville, Pa. (U. of N. C., 1966)
Gray, Robert L., Memphis, Tenn. (U. of Tennessee, 1968)
Green, Joseph M., Brooklyn, N. Y. (State U. of N. Y., 1966)
Green, Southgate W., Atlanta, Ga. (Bowman Gray, 1965)
Greenfield, Elliott C., Bayside, N. Y. (U. of Virginia, 1961)
Greenwald, Joseph C., Lake Success, N. Y. (New York M. C., 1945)
Gregg, Mitchell A., Miami Beach (U. of Miami, 1970)
Grossman, Benjamin, Flushing, N. Y. (Iowa State U., 1927)
Gungon, Teresita M., Brooklyn, N. Y. (U. of Santo Tomas, 1961)
Gursel, Erol O., Bronx, N. Y. (Istanbul U., 1954)
Gurwin, Bernard J., Bethesda, Md. (George Washington, 1926)
Gutgesell, Margaret E., Homestead AFB (U. of Wisconsin, 1968)

Haber, Melvin, Wethersfield, Conn. (New York M. C., 1963)
Hahn, Charles S., Brooklyn, N. Y. (U. of Maryland, 1937)
Hakanson, Carl M., Tampa (Columbia, 1963)
Hale, Michael K., Miami (U. of Miami, 1970)
Halpert, Edward S., (U. of Florida, 1969)
Hamilton, Sandra D., Gainesville (U. of Florida, 1970)
Hananian, Juliet, Miami (Tehran, 1956)
Hanna, Wagih F. A., Providence, R. I. (Cairo U., 1957)
Harbin, James E. Jr., Birmingham, Ala. (U. of Florida, 1970)
Hargis, Robert J., Ocean Springs, Miss. (Louisiana State, 1963)
Harris, Bruce A., Jr., Huntington, N. Y. (Harvard, 1943)
Harris, Gilbert W., Fort McClellan, Ala. (U. of Iowa, 1966)
Hart, Robert J., Tampa (U. of Illinois, 1968)
Hart, William M., Columbia, Mo. (Temple, 1948)
Hartline, Bon B., Pensacola (U. of Illinois, 1969)
Hebert, Steven C., Birmingham, Ala. (U. of Florida, 1970)
Hecht, Sidney M., Miami (U. of Miami, 1970)
Helou, Nagib P., Mineola, L. I., N. Y. (Cairo U., 1957)
Hemmat, Amir H., Sylvan Beach, N. Y. (Tehran, 1953)
Hendrix, James N., Miami (U. of Miami, 1970)
Herman, Harry, Philadelphia, Pa. (Temple, 1925)
Hernandez, Benito, Cockeysville, Md. (U. of Buenos Aires, 1964)
Hernandez, Fidel A., Baltimore, Md. (Havana U., 1945)
Hernandez, Jose E., Chicago, Ill. (Havana U., 1959)
Hetzer, Arthur M., Delray (State U. of N. Y., 1941)
Hill, Charles H., Indianpolis, Ind. (Cornell, 1963)
Himes, Joseph, Milwaukee, Wis. (Chicago M. S., 1946)
Hinenburg, Paul, Oakland, Calif. (U. of Chicago, 1959)
Hirsch, Nathan B., Coral Gables (Jefferson M. S., 1965)
Hirsh, Samuel J., Philadelphia, Pa. (Temple, 1970)
Hoche, John P., Winter Park (Columbia, 1970)
Hoffman, Peter F., Richmond, Va. (M. C. of Virginia, 1970)
Holland, Gary G., Birmingham, Ala. (Alabama U., 1967)

Holt, Edward T. R., New London, Conn. (St. Thomas's London U., 1953)
Hood, David E., Winter Park (M. C. of Georgia, 1970)
Horenstein, Martin, Orlando (M. C. of Virginia, 1968)
Horner, George S. H., Palatine, Ill. (Royal College of Surgeons, 1957)
Horrell, Jonathan B., Odessa (Harvard, 1944)
Horsburgh, Donald S., Philadelphia, Pa. (U. of Buenos Aires, 1965)
Houbalek, Lenke, Surfside (State U. of N. Y., 1957)
Howard, Francis M., Chicago, Ill. (Loyola, 1952)
Hoyer, David J., Portsmouth, Va. (Ohio State, 1968)
Hsu, A-Chuen, Landover, Md. (Kaohsiung M. C., 1962)
Hsu, John K., Brooklyn, N. Y. (National M. C. of China, 1951)
Hughes, Richard A., Glens Falls, N. Y. (Marquette, 1949)
Hughes, Rupert S., Maplewood, N. J. (M. C. of Virginia, 1946)
Hungerbuhler, Robert F., Yorktown, Va. (U. of Florida, 1970)
Husain, Muzaffar, Lakeland (Osmania U., 1954)
Husain, Sualya, Lakeland (Osmania U., 1962)
Hutchinson, Roy M., Fort Dodge, Ia. (Iowa U., 1957)
Hyams, Phineas J., New York, N. Y. (State U. of N. Y., 1964)
Hyer, Fred H., Jacksonville (New Jersey M. C., 1970)

Ibrahim, Ramsis G., Jamaica, N. Y. (Alexandria, Egypt, 1950)
Ie, Njoek S., Miami (U. of Indonesia, 1959)
Inanc, Dogan, Boston, Mass. (U. of Istanbul, 1955)
Inchausti, Mario, Miami (U. of Salamanca, 1968)
Irick, Martha A. B., New York, N. Y. (U. of Miami, 1970)
Iriondo, Manuel A., McKinney, Texas (Havana U., 1939)
Iyengar, N. V. Ramanuja, Miami (Mysore M. C., 1964)

Jackman, Lawrence S., New Rochelle, N. Y. (Temple, 1966)
Jacobs, Henry R., Evanston, Ill. (U. of Iowa, 1928)
Jacoby, Mel S., Quebec, Canada (Chicago M. S., 1968)
Jagust, Joseph R., Englewood Cliffs, N. J. (Chicago M. S., 1953)
Jamir, Efren A., Daytona Beach (Far Eastern U., 1962)
Janczakowski, Wlodzimierz J., Spokane Wash. (Gdanski M. S., Poland, 1955)
Janning, John T., Dayton, Ohio (Ohio State, 1959)
Jarrett, Alan, Houston, Texas (U. of Tennessee, 1969)
Jennings, Ralph H. Jr., Little Rock, Ark. (U. of Arkansas, 1965)
Joffe, Seymour, Miami (New York U., 1953)
Johnson, George V., Westover AFB, Mass. (Ohio State U., 1966)
Johnston, Frank M., Sr., Savannah, Ga. (M. C. of Georgia, 1959)
Johnston, Glenn R., Jacksonville (Bowman Gray, 1970)
Jones, Jeffrey S., Gainesville (U. of Florida, 1970)
Jones, Robert B., Englewood, N. J. (U. of Virginia, 1964)
Jordan, William R., Gainesville (U. of N. C., 1970)
Jose, Alfredo Y., Alhambra, Calif. (U. of Sto Thomas, 1962)
Juan-Pita, Erik G., Rio Piedra, Puerto Rico (Havana U., 1948)
Juhala, Curtis A., Cherry Pte., N. C. (U. of Texas, 1967)
Jutabha, Opas, Sigourney, Ia. (Chulalongkorn M. S., 1957)
Jutabha, Puangtong, Sigourney, Ia. (Chulalongkorn M. S., 1957)

Kadiwala, Mohamed Y. U., Howard, R. I. (U. of Baroda, 1961)
Kakaska, George H., Dallas, Texas (U. of Wisconsin, 1953)
Kalambaheti, Kitti, Victor, Ia (Siriraj M. S., 1957)
Kalett, Robert L., Houston, Texas (Free U. of Brussels, 1965)
Kalish, Mark D., Coral Gables (Meharry, 1970)
Kamstock, Edwin L., Durham, N. C. (Loyola, 1964)
Kane, Diane H., Miami (U. of Miami, 1970)
Kane, Jack L., Cherry Point, N. C. (Indiana U., 1968)
Kanter, Myron F., University Heights, Ohio (Western Reserve, 1939)
Kaplan, Steven C., Mount Vernon, N. Y. (Albert Einstein, 1969)
Karch, Gary D., Miami (State U. of N. Y., 1968)
Karp, Joel, Brooklyn, N. Y. (U. of Basel, 1962)
Katz, Allan R., Bayside, N. Y. (M. C. of Virginia, 1967)
Katzen, Barry T., New York, N. Y. (U. of Miami, 1970)
Kaufman, Jacob M., Huntington Woods, Mich. (Wayne State, 1945)
Kay, Lawrence L., Orange Park (Oklahoma U., 1969)
Keck, David J., Fairview, Pa. (Jefferson M. C., 1949)
Keister, Henry B., Mayfield, Ky. (U. of Tennessee, 1958)
Kelly, Ann J., Jacksonville (Tulane, 1970)
Kelly, Thomas S., Lyndhurst, Ohio (Yale, 1952)
Kelter, Joseph J., Brooklyn, N. Y. (New York U., 1943)
Kern, Howard A., Convent Station, N. J. (Temple, 1964)
Khawly, Roosey, New York, N. Y. (U. of Florida, 1970)
Kihm, John L., Kalamazoo, Mich. (U. of Michigan, 1956)
Kim, Chang K., Brooklyn, N. Y. (Yonsei U., 1962)
Kimmich, Homer M., Springfield, Ill. (Temple, 1955)
King, Byron F. Jr., Orange Park (George Washington, 1968)
King, Harold, Indianapolis, Ind. (Yale, 1946)
Kingsley, David I., Edison, N. J. (Duke, 1962)
Kinsley, George, Birmingham, Mich. (Harvard, 1931)
Kirby, Norman K., Harlan, Ky. (U. of Louisville, 1956)
Kirkpatrick, Homer L. Jr., Miami (U. of Miami, 1970)
Kirschner, Ely A., Wallingford, Conn. (Yale, 1970)
Kirsh, Alan D., Decatur, Ga. (Emory, 1970)
Kirts, Thomas E., Fort McClellan, Ala. (Loyola, 1966)
Klooze, Kenneth W., Fort Wayne, Ind. (U. of Louisville, 1955)
Kloss, Joseph L., Akron, Ohio (St. Louis U., 1957)
Kolbas, Eugene D., Gary, Ind. (Zagreb M. S., 1955)
Koloski, Martin G., Poughkeepsie, N. Y. (State U. of N. Y., 1952)
Kolts, Byron E., Gainesville (U. of Rochester, 1964)
Konerding, Karsten F., Miami (Northwestern, 1970)
Koppel, Rene, Charleston, S. C. (Tulane, 1970)
Koss, Neal, Wallingford, Conn. (Yale, 1966)
Krauss, Jonathan S., Surfside (U. of Florida, 1970)
Krayanek, Moshe D., Buffalo, N. Y. (U. of S. California, 1962)
Krumerman, Joel H., Miami Beach (State U. of N. Y., 1970)
Kuebler, Charles W. Jr., Pensacola (U. of Mississippi, 1969)

Labance, Michael J., St. Petersburg (Duke, 1969)
LaFuente, Nancy, Indianapolis, Ind. (Indiana U., 1968)
Lallanilla, Alejandro, Garrettsville, Ohio (Havana U., 1955)
Lamelas, Melquiades, Miami (Havana U., 1950)
Landgarten, Steven, Branford, Conn. (State U. of N. Y., 1966)
Langsam, Martin, Brooklyn, N. Y. (New York U., 1935)
Lansman, Henry H., Miami Beach (Long Island M. C., 1934)
Lapeyra, Joseph J., Whitestone, N. Y. (U. of Salamanca, 1963)
Larbig, Gert G., Slingerlands, N. Y. (Goethe U., 1954)
Larkin, Thomas E., Fort Lauderdale (Jefferson M. C., 1924)
La Rosa, Gasper A., Miami Beach (Creighton, 1938)
Lazar, Allan W., Lighthouse Point (Jefferson M. C., 1957)
Lazar, Harold N., Miami (U. of Minnesota, 1969)
Lazenby, George W., Tarpon Springs (Duke, 1961)
Lee, Uk H., New Carrollton, Md. (Pusan National U., 1966)
Lee-Ho, Jaime S., Hempstead, N. Y. (U. of Santo Tomas, 1965)
Leer, John A. Jr., Morristown, N. J. (Temple, 1946)
Leffler, Thomas E., Jacksonville (Northwestern, 1970)
Leifer, Paul, New York, N. Y. (New York U., 1949)
Leon, Octavio, Miami (Salamanca U., 1970)
Leonard, Donald G., Birmingham, Ala. (Bowman Gray, 1970)
Lesavoy, Malcolm A., Chicago, Ill. (Chicago M. S., 1969)
Levi, Joe U., Miami (U. of Florida, 1967)

Levin, Alfred C., Flushing, N. Y. (New York M. C., 1952)
Levin, Jerry C., Glencoe, Ill. (U. of Illinois, 1952)
Levine, Martin, Old Westbury, L. I., N. Y. (Munich U., 1958)
Levine, Paul R., Miami (U. of Miami, 1970)
Levinson, Gerald L., Far Rockaway, N. Y. (State U. of N. Y., 1964)
Levinson, Julian P., Pittsburgh, Pa. (Washington U., 1937)
Lewis, Roger K., Mountain Brook, Ala. (Cornell, 1966)
Lieberson, Leonard, North Bergen, N. J. (New York M. C., 1944)
Liebler, George A., Pittsburgh, Pa. (George Washington, 1962)
Lien, Yau-Tong, Lakeland (National Taiwan U., 1963)
Lindo, Sonia D., New York, N. Y. (U. of Edinburgh, 1965)
Linville, James J., Indianapolis, Ind. (Indiana U., 1966)
Lipman, Earl S., Rochester, N. Y. (New York U., 1951)
Lipson, Jacques M., Rochester, N. Y. (U. of Buffalo, 1958)
Lipton, Hugh L., Fort Lauderdale (Johns Hopkins, 1970)
Litman, George I., Rochester, N. Y. (Boston U., 1964)
Locuratolo, Luis R., Elmhurst, N. Y. (U. of Rosario, 1959)
Lokey, Julian L., Jr., Atlanta, Ga. (U. of N. C., 1970)
London, Mark S., Miami (Meharry, 1970)
Lonkani, Jairam, Grantsville, W. Va. (Chulalongkorn M. S., 1959)
Lopez, Elias O., Jackson, Mich. (San Marcos, 1957)
Lopez, Jose, College Park, Ga. (Havana U., 1949)
Lopez, Juan M., Baltimore, Md. (Salamanca U., 1963)
Lores, Edward F., Coral Gables (Emory, 1970)
Losada, Arquimides J., Miami (U. of Madrid, 1969)
Loss, Michael R., Union, N. J. (New Jersey M. C., 1968)
Lotz, Preston R., Miami (Hahnemann, 1970)
Lovaton, Ramos S., Coral Gables (U. of Paris, 1940)
Lowe, Adolph W., Detroit, Mich. (Wayne State, 1934)
Lozner, Eugene L., Syracuse, N. Y. (Cornell, 1937)
Luce, Henry A., Livingston, N. J. (Georgetown, 1936)
Ludman, Harold, Westbury, N. Y. (State U. of N. Y., 1954)
Lwin, Nyunt, Miami Beach (U. of Rangoon, 1959)
Lynn, Brian C. Jr., Nashville, Tenn. (U. of Florida, 1968)
Lyons, Richard H., Fayetteville, N. Y. (U. of Michigan, 1935)

Maceo, Antonio, Coral Gables (U. of Paris, 1936; Havana U., 1938)
Mac Gregor, Alexander, Gainesville (U. of St. Andrews, 1958)
Machado, Raul L., Baltimore, Md. (Havana U., 1943)
Macias, Francisco M., Hampton, Ga. (Havana U., 1960)
Macnaughton, Robert J. Jr., Gainesville (U. of N. C., 1969)
Macon, Robert C., Rockville, Md. (U. of Maryland, 1958)
Macrae, Malcolm M., Waco, Texas (George Washington, 1944)
Maddux, Ronald A., Pensacola (U. of Miami, 1970)
Maerz, John C., Norristown, Pa. (Jefferson M. C. 1951)
Magee, Kenneth G., Tucker, Ga. (U. of Maryland, 1963)
Maize, John C., Ann Arbor, Mich. (U. of Michigan, 1968)
Maldonado, Benjamin Jr., Washington, D. C. (Loyola U., 1953)
Malloy, Francis E. Jr., Indianapolis, Ind. (Loyola U., 1961)
Maloy, William C., Charleston, S. C. (M. C. of Georgia, 1961)
Malvin, Harry H., Deerfield, Ill. (Northwestern, 1956)
Mandelbaum, Harold L., Brooklyn, N. Y. (State U. of N. Y., 1954)
Mandelstamm, Maria, Okemos, Mich. (U. of Munster, 1955)
Maniglia, Antonio J., Coral Gables (U. of Sao Paulo, 1963)
Manning, Irving G., Bay Shore, N. Y. (Long Island M. C., 1949)
Mansoori, Nahid, Miami (U. of Pahlavi, 1959)
Marger, Donald, Plattsburgh AFB, N. Y. (Duke, 1969)
Margeson, Kenneth L., Key West (Emory, 1969)
Mark, Harold I., New Rochelle, N. Y. (M. C. of Virginia, 1937)
Marks, Charles, Cleveland, Ohio (U. of Cape Town, 1945)
Maronpot, Raymond C., Bernardsville, N. J. (Georgetown, 1950)
Marrero, Ana R., Miami Lakes (U. of Paris, 1940)
Martelo, Orlando J., Miami (Javeriana U., 1960)
Martin, Frederick T., Cincinnati, Ohio (U. of Cincinnati, 1953)
Martinez, Carlos, Orlando (St. Xavier, 1960)
Martinez, Milton E., Hialeah (Havana U., 1954)
Mas, Miguel A., Indianapolis, Ind. (Havana U., 1957)
Mascarenhas, Eugene L., Miami Beach (Grant M. C., 1962)
Mason, Daniel J., Brookville, N. Y. (State U. of N. Y., 1953)
Maynard, Frederick M., Allen Park, Mich. (Wayne State, 1943)
McCabe, John C., New York, N. Y. (George Washington, 1967)
McCann, Gerald J., Jacksonville (U. of California, 1963)
McCann, Nessan, Jacksonville (U. of Ireland, 1949)
McCormick, Eldridge E., Winston Salem, N. C. (U. of Miami, 1970)
McCreary, Robert H., Miami (U. of Miami, 1970)
McDonald, William J., Satellite Beach (U. of Illinois, 1965)
McElhinney, Andrew J., Pelham, N. Y. (Cornell, 1954)
McGinley, Robert B., Winter Park (Emory, 1970)
McNally, John J., Bayport, L. I., N. Y. (Long Island M. C., 1948)
McVay, James R. Jr., Boca Raton (Johns Hopkins, 1944)
McWilliams, Neil E., Gainesville (U. of Florida, 1969)
Medina, Jorge F., Cambridge, Md. (Havana U., 1944)
Meghdadi, Gholamali, Memphis, Tenn. (Tehran, 1960)
Meilman, Jeffrey G., Buffalo, N. Y. (U. of Rochester, 1969)
Mendez, Hedley N. III, Hialeah (U. of Miami, 1970)
Mendez, Luis N., Miami (U. of Havana, 1960)
Menn, Henry W. Jr., Miami Lakes (Georgetown, 1964)
Meta, Louis D., Shaw AFB, S. C. (U. of Pittsburgh, 1967)
Metzger, Robert A., Miami (Creighton, 1964)
Michaelis, Stephen C., Fort Wayne, Ind. (Indiana U., 1937)
Midgley, Waldo V. S., White Plains, N. Y. (Columbia, 1946)
Mihajlov, Igor, Rochester, N. Y. (Zagreb U., 1957)
Milicic, Matko, Rochester, Minn. (U. of Basel, 1963)
Miller, Alan I., Miami (U. of Miami, 1967)
Miller, Robert F., Durham, N. C. (Duke, 1967)
Minick, James E., Winston-Salem, N. C. (Temple, 1951)
Minick, Russell C., Somerset, Pa. (Temple, 1946)
Miro, Jose M., Rome, N. Y. (Havana U., 1952)
Mitchell, Russell C., Tampa (Oklahoma U., 1967)
Mize, Roby D., APO New York (U. of Arkansas, 1968)
Molina, Raul G., Monahans, Texas (Havana U., 1960)
Molina, Rafael, Skokie, Ill. (Cartagena M. S., 1957)
Moll, Joseph H., Stuart (Jefferson M. C., 1957)
Monaco, Benjamin P., Pascagoula, Miss. (Wayne State, 1965)
Monninger, Hilmar A., Miami (U. of Miami, 1970)
Moore, Jimmie D., Orlando (U. of Kansas, 1966)
Mora, Rene M., Miami (Havana U., 1950)
Moran, Leo J., Gainesville (U. of Minnesota, 1954)
Morgan, James D., Key West (Oklahoma U., 1961)
Morgan, Owen K., Johnstown, Pa. (U. of Pittsburgh, 1958)
Morganroth, Joel, Boston, Mass. (U. of Michigan. 1970)
Mork, Gustave W., Erie, Pa. (New York M. C., 1959)
Morris, Jerry L., Jacksonville (U. of Louisville, 1964)
Morrisey, Allen W., Needham, Mass. (New York M. C., 1957)
Morrison, Alan N., West Hempstead, N. Y. (State U. of N. Y., 1951)
Moss, Michael M., Miami (New York M. C., 1964)
Moye, Wayne L., Coral Gables (U. of Miami, 1970)
Muina, Antonio N., Pittsburgh, Pa. (Havana U., 1960)

Mukherjea, Milan M., Oaklawn, Ill. (U. of Calcutta, 1965)
Munoz, Humberto E., Woodbine, Ga. (Havana U., 1943)
Munson, Edwin S., Gainesville (U. of Tennessee, 1957)
Muroff, Lawrence R., Fort Lee, N. J. (Harvard, 1967)
Murray, June M., Brookline, Mass. (U. of Wales, 1956)
Musella, Rosario A., St. Petersburg (U. of Naples, 1953)
Muset, Frank A., Manchester, N. H. (Long Island M. C., 1943)

Naidich, Thomas P., West Hempstead, N. Y. (New York U., 1969)
Napoles, Jose R., Chicago, Ill. (U. of Barcelona, 1966)
Natoli, Dennis T., N. Miami Beach (Seton Hall, 1964)
Naya, Jorge A., Miami (Havana U., 1944)
Nelson, Donald C., Lake Worth (U. of Florida, 1970)
Nemecek, Jerry J., Lake City (Charles U., 1953)
Nemeth, Clifford J., Jacksonville (U. of Colorado, 1968)
Nevins, Robert C. Jr., Delray Beach (Vanderbilt, 1965)
Niggemann-Zayas, Enrique, C., Rio Piedras, P. R. (Havana U., 1957)
Niubo, Adriano, Elizabeth, N. J. (Havana U., 1949)
Nixon, William H., Fort Walton Beach (M. C. of Georgia, 1961)
Nogen, Alan G., Wichita Falls, Texas (U. of Cincinnati, 1965)
Noroozi, Iradj, Flushing, N. Y. (Tehran, 1964)
Nowels, Anthony, Fort Lee, N. J. (Columbia, 1968)

O'Brian, Jack C., Peoria, Ill. (U. of Illinois, 1955)
O'Brien, John C. Jr., Dallas, Texas (St. Louis U., 1969)
O'Daniel, Joseph R. Jr., Pensacola (U. of Kentucky, 1970)
Oglesby, James E., Fort Bragg, N. C. (M. C. of Georgia, 1959)
Okuboye, Julius A., Bronx, N. Y. (Durham, 1961)
Olson, Ross G., Tampa (Washington U., 1960)
O'Malley, Thomas A., Rochester, N. Y. (U. of Liverpool, 1956)
Obegozo, Jose, Cincinnati, Ohio (U. of Columbia, 1959)
Oren, Mark E., Hamden, Conn. (Harvard, 1966)
Orstein, David H., Briarwood, N. Y. (U. of Miami, 1970)
Ortega, Jesus, Dearborn, Mich. (U. of Barcelona, 1964)
Ortega, Jorge A., Burbank, Calif. (Havana U., 1960)
Orzac, Edward S., Hewlett Harbor, N. Y. (U. of Virginia, 1941)
Oscar, Alvin D., Columbus, Ga. (Jefferson M. C., 1964)
Oteiza, Jorge A., Valdosta, Ga. (Havana U., 1952)
Owensby, Lindell C., Concordia, Kan. (Washington, 1944)
Oyman, Recep C., Staten Island, N. Y. (Istanbul, 1956)
Ozsezen, Bulent A., Evansville, Ind. (Ankara U., 1947)

Pace, Jerome V. H., Fort Myers Beach (U. of Nebraska, 1921)
Padron, Anselmo, Baltimore, Md. (Havana U., 1947)
Page, Robert C., Delray Beach (State U. of N. Y., 1933)
Pages, Fernando, Danville, Pa. (Havana U., 1929)
Paparella, Jerome A., Batavia, N. Y. (Hahnemann, 1948)
Pardo, Laurindo J., Gainesville (Havana U., 1947)
Parsick, Daniel P., Peckville, Pa. (Far Eastern U., 1969)
Pascual, Luis V., Rockville, Md. (Havana U., 1940)
Pascual, Mario A., Miami (Havana U., 1950)
Pasternak, Maxwell, North Haven, Conn. (U. of Toronto, 1936)
Pataki, Kenneth I., Miami (New York M. C., 1970)
Patheja, Surjit S., Valparaiso, Ind. (Rangoon U., 1959)
Paul-Dharam, Evanston, Ill. Medical College, India, 1955)
Pecache, Conchita C. T., Madison, Tenn. (U. of Santo Tomas, 1954)
Pelner, Louis, Brooklyn, N. Y. (New York U., 1933)
Peng, Tseng H., Decatur, Ga. (U. of S. C., 1970)
Pepe, Vincent, Meriden, Conn. (Yale, 1946)
Peralta, Josefa B., Chicago, Ill. (Manila Central U., 1953)
Perchalski, John E., Fort Benning, Ga. (U. of Florida, 1967)
Peter, Howard B., Miami (U. of Louisville, 1967)
Pereira, Faustino M., Winter Haven (Havana U., 1948)
Perera, Isaac, Cuba, N. Y. (U. of Chile, 1961)
Perez, Arturo, Bethlehem, Pa. (Santiago de Compostela M. S., 1968)
Perez, Florence, Warren, Mich. (Havana U., 1952)
Pesiri, Anthony J., Jamaica, N. Y. (Marquette, 1945)
Pheasant, Thomas R., Atlanta, Ga. (Case Western Reserve, 1970)
Phelan, John T., Buffalo, N. Y. (Marquette, 1947)
Phillips, Fred J., Quakertown, Pa. (U. of Pennsylvania, 1943)
Phillips, Hance C. Jr., Satellite Beach (Northwestern, 1969)
Phillips, James D., St. Petersburg (U. of Tennessee, 1958)
Pick, Jerold A., Oak Park, Ill. (U. of Illinois, 1964)
Pienkowski, John F., Miami (Hahnemann, 1954)
Pierce, John A., Gulford, Conn. (Georgetown, 1950)
Pierson, George H. Jr., Chapel Hill, N. C. (Duke, 1954)
Pikler, George M., Rochester, Minn. (U. of Ecuador, 1968)
Pinera, Antonio C., Miami (U. of Santiago, 1969)
Pitman, Ernest R., Roslyn Heights, N. Y. (New York U., 1948)
Pitrelli, John R., Kings Park, N. Y. (U. of Bologna, 1961)
Pollock, Edward J., Yonkers, N. Y. (Harvard, 1966)
Polsky, Elliot, Woodbridge, Conn. (U. of Ghent, 1959)
Popek, Monique M. A., McAllen, Texas (U. of Brussels, 1969)
Porcello, Joseph A., Pleasantville, N. Y. (New York U., 1931)
Porter, Michael J., Miami Beach (U. of Missouri, 1970)
Portuondo, Juan M., Milledgeville, Ga. (Havana U., 1940)
Posso, Manuel, Ithaca, N. Y. (U. of Colombia, 1959)
Post, Donald F., Deltona (Jefferson M. C., 1965)
Powell, Charles H., Mars Hill, N. C. (Jefferson M. C., 1954)
Powell, William E. Jr., Mars Hill, N. C. (Jefferson M. C., 1950)
Pratt, Gilbert W., Miami (U. of Tennessee, 1966)
Prendiville, Maurice, Heidelberg, APO N. Y. (U. of Dublin, 1965)
Pretter, Paul D., Pittsburgh, Pa. (U. of Louvain, 1961)
Prohovnik, Julius, Chicago, Ill. (U. of Illinois, 1928)
Punyaratabandhu, Chalermchai, Jacksonville (Mahidol U., 1965)

Quintana, Julio C., Adelphi, Md. (Havana U., 1953)

Rabhan, Walter N., Hampton, Va. (M. C. of Georgia, 1964)
Raby, Elliott C., Atlanta, Ga. (U. of Miami, 1970)
Rachlin, Edward S., Fort Lauderdale (U. of Leiden, Holland, 1955)
Radin, Robert V., Omaha, Neb. (U. of Nebraska, 1962)
Raff, Ira L., Danbury, Conn. (New York M. C., 1964)
Raffel, Robert E., Barksdale AFB, La. (U. of Illinois, 1969)
Rafool, Gordon J., San Antonio, Texas (M. C. of Georgia, 1968)
Rak, Max, Richmond Heights, Ohio (U. of Graz, Austin, 1952)
Ramaswamy, Krishnaswamy, Miami (Gujaret U., 1962)
Rambasek, Edward S., Strongsville, Ohio (Case Western Reserve, 1942)
Ramieri, Joseph, New York, N. Y. (New York M. C., 1969)
Ramirez, Antonio I., Raiford (Far Eastern U., 1958)
Ramirez, Raimundo J., College Park, Ga. (Havana U., 1948)
Ramos, Pedro J., Miami (Havana U., 1960)
Ramsey, Constance K., Gainesville (Washington U., 1966)
Rasansky, Harry N., Merion Station, Pa. (U. of Texas, 1948)
Ravelo, Jorge E., Orlando (Havana U., 1952)
Raziano, Joseph V., New York, N. Y. (Cornell, 1962)
Reaud, Angel, Adelphi, Md. (Havana U., 1934)
Reder, Benjamin, Miami (Boston U., 1939)
Reilly, John W., Demarest, N. J. (Columbia U., 1964)
Reinhold, Herbert E., Hackensack, N. J. (New York U., 1927)
Reyes, Orlando, Highland Park, Ill. (Havana U., 1953)
Riccardi, John D., Roslyn, N. Y. (New York M. C., 1943)
Richter, Paul, Richmond, Va. (U. of Buenos Aires, 1960)

Risbeck, Earl C., Crescent City (Columbia, 1951)
Rivera, Miguel R., Hollywood (U. of Mexico, 1955)
Rivera-Correa, Hector P., St. Petersburg (U. of Puerto Rico, 1964)
Roberts, Earl J., Decatur, Ga. (Emory, 1969)
Robinson, Harold G., Albany, Ga. (U. of Louisville, 1963)
Roca, Luis A., Miami (Havana U., 1960)
Rodman, George H. Jr., Miami (U. of Kentucky, 1970)
Rodriguez, Hernando, Newberry, Mich. (U. of Javeriana, 1960)
Rodriguez, Jesus M., Chattahoochee (Havana U., 1938)
Rodriguez, Sergio L., Staten Island, N. Y. (Havana U., 1959)
Rodriguez, William H., Hialeah (U. of Madrid, 1965)
Rodriguez-Antunez, Antonio, Cleveland, Ohio (U. of Granada, 1951)
Rogers, Robert M., New York, N. Y. (New York M. C., 1970)
Rogers, William D. Jr., Chattahoochee (U. of Miami, 1970)
Rogoff, Robert, Cleveland, Ohio (Western Reserve, 1942)
Rohan, Michael X., Miami (U. of Florida, 1970)
Rose, Malcolm R., New York, N. Y. (New York U., 1969)
Rosenfield, David A., Miami (Northwestern, 1970)
Rosenthal, Stoyan P., Brooklyn, N. Y. (Tufts, 1957)
Rosillo, Francisco E., Hagerstown, Md. (Havana U., 1949)
Ross, Paul B., Great Neck, N. Y. (State U. of N. Y., 1951)
Ross, Stanley, Jamaica Estates, N. Y. (U. of Berne, 1956)
Rotbart, Abraham, Miami Beach (U. of Kansas, 1970)
Roth, Leon, Staten Island, N. Y. (Buenos Aires U., 1956)
Rothman, Carol A., New York, N. Y. (Boston U., 1966)
Rothman, Herbert L., New York, N. Y. (Boston U., 1966)
Roy, Douglas M., West Palm Beach (U. of Florida, 1970)
Roy, Robert E., Ravenna, Ohio (Western Reserve, 1949)
Ruebel, Armin A. L., Philadelphia, Pa. (U. of Wurzburg, 1964)
Ruebel, Catherine D., Philadelphia, Pa. (Georgetown, 1968)
Rueda, Jorge E., N. Miami Beach (U. of Javeriana, 1963)
Russell, Attie Y., Cincinnati, Ohio (U. of Chicago, 1958)
Ryan, Stephen J., Providence, R. I. (McGill, 1935)

Sachs, Joseph M., Miami (Alabama M. C., 1966)
Sager, Alan R., New Providence, N. J. (Boston U., 1969)
Saha, Asis K., North Miami (Calcutta M. C., 1963)
Saichek, Herbert B., Omaha, Neb. (M. C. of Wisconsin, 1943)
Saikley, Garrett F., Durham, N. C. (Duke, 1971)
Sakellarides, Michael J., Tarpon Springs (M. C. of Alabama, 1970)
Salam, Atef, Miami (Cairo M. S., 1955)
Salami, Mohammad F., Coral Gables (Shiraz U., 1964)
Sampson, Andrew E., Plant City (Far Eastern U., 1969)
Samson, Ronald L., Miami (State U. of N. Y., 1966)
Samuels, Hiemie S., Mentor, Ohio (Dalhousie U., 1955)
Sanabria, Juan D. C. C., Winter Haven (Havana U., 1960)
Sandhaus, Harold S., Valley Stream, N. Y. (Johns Hopkins, 1941)
Santander, Marcos O., Oak Lawn, Ill. (Havana U., 1954)
Santos, Nadelia G., Northville, Mich. (Havana U., 1948)
Santos, Raul R., Northville, Mich. (Havana U., 1947)
Sapolsky, Jack L., Jacksonville (U. of Tennessee, 1964)
Sarkis, Richard J., Rochester, N. Y. (U. of Rochester, 1958)
Saskin, Gordon A., Cincinnati, Ohio (U. of Indiana, 1970)
Sattler, Jon I., Miami (U. of Florida, 1970)
Sauer, John S., Lancaster, N. Y. (Marquette, 1959)
Savetamal, Charoen, Sidney, Ohio (Chulalongkorn M. S., 1957)
Savetamal, Ngampen, Sidney, Ohio (U. of Medical Sciences, 1961)
Sayer, Brian L., Miami (Albany M. C., 1970)
Sayler, Osbey L., Portsmouth, Va. (U. of Indiana, 1966)
Schale, Ray R., Kankakee, Ill. (Baylor, 1961)
Scarborough, Charles D., Plantation (Washington U., 1961)
Scheimberg, Bernardo S., New York, N. Y. (Buenos Aires U., 1957)
Scherba, Eugene J., Flossmoor, Ill. (Loyola, 1952)
Schewe, Alden C., Pittsfield, Ill. (Missouri U., 1958)
Schiff, Leon, Coral Gables (U. of Cincinnati, 1924)
Schilling, Fred J. Jr., Old Westbury, N. Y. (Long Island M. C., 1942)
Schlossman, Robert C., Dallas, Texas (State U. of N. Y., 1963)
Schneider, Stephen S., Passaic, N. J. (Tufts, 1970)
Schlichter, Frank J. Jr., Opelika, Ala. (U. of Alabama, 1965)
Schnirman, Gilbert A., Brooklyn, N. Y. (U. of Bologna, 1966)
Schuele, Howard L., Chicago, Ill. (Northwestern, 1964)
Schumacher, Paul D., Miami (U. of Miami, 1970)
Schwager, Verne A., Chicago, Ill. (U. of Wisconsin, 1968)
Schwartz, Aaron M., Irvington, N. Y. (New York M. C., 1950)
Schwartz, John M., Jamaica Estates, N. Y. (Long Island M. C., 1945)
Schwartzman, Robert J., Miami (U. of Pennsylvania, 1965)
Segelnick, William, Brooklyn, N. Y. (U. of Lausanne, 1961)
Seibert, Richard J., Cranston, R. I. (Marquette, 1964)
Seliger, Gustav, New York, N. Y. (U. of Buffalo, 1962)
Selman, Robert, Orchard Lake, Mich. (U. of Michigan, 1958)
Sells, Randell D., Pensacola (U. of Louisville, 1968)
Sera, Carlos C., Bowie, Md. (Havana U., 1953)
Serentill, Luis H., Cleveland, Ohio (U. of Salamanca, 1968)
Serwer, Jesse J., Bayside, N. Y. (Long Island College, 1927)
Shah, Bansilal P., Rego Park, N. Y. (U. of Baroda, 1963)
Shapiro, Stephen R., Newark, N. J. (Chicago M. S., 1969)
Shardlow, Silfred B., New York, N. Y. (U. of Birmingham, 1954)
Shaw, Edward L., Gainesville (U. of Bologna, 1968)
Shaw, Russel K., Jacksonville (M. C. of South Carolina, 1965)
Shepard, Thomas J., Pittsburgh, Pa. (U. of Pennsylvania, 1959)
Sher, Arthur B., Coral Gables (U. of Miami, 1969)
Sher, Phyllis K., Coral Gables (U. of Miami, 1970)
Sherman, William M., University City, Mo. (U. of Michigan, 1965)
Shore, William B., Miami (Northwestern, 1967)
Shuman, Joseph, Pittsburgh, Pa. (U. of Salamanca, 1967)
Sibley, William R. Jr., Abilene, Texas (Baylor, 1950)
Siegel, Edward A., Denver, Colo. (U. of Florida, 1970)
Sierchio, Gerald P., Cobleskill, N. Y. (Georgetown, 1956)
Sikes, Thomas E. Jr., Pensacola (M. C. of Georgia, 1970)
Silverman, Lewis D., Fort Lauderdale (U. of Miami, 1970)
Silverman, Paul B., Groton, Conn. (Jefferson M. C., 1967)
Sims, William G., Nashville, Tenn. (M. C. of Georgia, 1963)
Slade, George F., Decatur, Ga. (Emory, 1965)
Slayden, Robert M., Metaire, La. (U. of Tennessee, 1969)
Slotnick, Victor B., Merion Station, Pa. (Jefferson M. C., 1965)
Slutzky, Roberto J., Danville, Ill. (U. of Buenos Aires, 1955)
Smith, Allen O., Metairie, La. (U. of Illinois, 1969)
Smith, Bruce P., Miami (State U. of New York, 1970)
Smith, Donald C., Wilkes-Barre, Pa. (Jefferson M. C., 1931)
Smith, Laurin G. III, Orange Park (U. of Miami, 1970)
Smith, Ralph S. Jr., Cincinnati, Ohio (Northwestern, 1966)
Smith, Raymond O. Jr., Gainesville (U. of Oklahoma, 1963)
Smoley, Melvin, Melville, L. I., N. Y. (Chicago M. S., 1945)
Soled, Morris, Jersey City, N. J. (State U. of N. Y., 1951)
Soffici, Jorge H., Lakewood, Colo. (U. of Buenos Aires, 1959)
Sora, Paul P., Chicago, Ill. (Havana U., 1946)

Sordo, Fernando D., Miami (Havana U., 1945)
Soto, Bernard, Tallahassee (Tulane, 1946)
Spielovgel, Arthur R., Ridgewood, N. J. (Hahnemann, 1959)
Spier, Nathaniel, Great Neck, N. Y. (State U. of N. Y., 1958)
Spinelli, Luis C., Miami (U. of Buenos Aires, 1964)
Spiro, Joel M., Albany, N. Y. (St. Louis U., 1964)
Spoont, Stanley, Merion Station, Pa. (U. of Pennsylvania, 1948)
Squires, William J., Farmingdale, N. Y. (New York M. C., 1959)
Sreeramaiah, K. M. III, Milledgeville, Ga. (Kasturba M. C., 1961)
Stahle, Galen W., Key Biscayne (U. of Iowa, 1970)
Stallworth, Terresa L., Knoxville, Tenn. (U. of Tennessee, 1963)
Stam, Jacob J., Brooklyn, N. Y. (U. of Lausanne, 1959)
Steck, Willard D., Newport News, Va. (U. of Texas, 1954)
Steigner, John B., New Orleans, La. (M. C. of S. C., 1968)
Steinbeck, Herbert D., Ridgefield, Conn. (St. Louis U., 1947)
Steinberg, Sidney R., Lexington, Ky. (U. of Kentucky, 1965)
Stempler, Allan I., Great Neck, N. Y. (U. of Mississippi, 1969)
Stephanian, John T., Brooklyn, N. Y. (Tehran, 1952)
Stern, Alan G., Brooklyn, N. Y. (Chicago M. S., 1965)
Stern, Leonard R., Union City, N. J. (Chicago M. S., 1956)
Steuart, Charles D., Coral Gables (Johns Hopkins, 1960)
Stevens, Larry E., Tampa (U. of Kentucky, 1970)
Stewart, Bruce N., Denver, Colo. (U. of Florida, 1970)
Stonehill, Sydney, Rochester, N. Y. (U. of Iowa, 1939)
Storm, Jack, New Hyde Park, N. Y. (State U. of N. Y., 1959)
Stote, Robert M., Rochester, Minn. (Albany M. C., 1964)
Strasburger, Arthur K., Durham, N. C. (Johns Hopkins, 1965)
Streisfeld, Steven D., Brooklyn, N. Y. (State U. of N. Y., 1966)
Stringer, Douglas L., Jacksonville (M. C. of Georgia, 1967)
Strohmenger, James M., Columbia, S. C. (U. of Miami, 1970)
Strong, Paul S., Huntington, N. Y. (Columbia, 1939)
Sturman, Martin F., Bridgeport, Conn. (State U. of N. Y., 1952)
Suarez, Guillermo, Pinellas Park (U. of Javeriana, 1965)
Sullwold, Arthur F. Jr., Jacksonville (Louisiana State, 1969)
Sumerson, James M., Philadelphia, Pa. (Jefferson M. C., 1967)
Surks, Sylvan N., Great Neck, N. Y. (Chicago M. S., 1944)
Sussman, Seymour N., Brooklyn, N. Y. (State U. of N. Y., 1953)
Sutly, Joseph C., Lisle, Ill. (Loyola, 1964)
Sutton, Albert P., Great Neck, N. Y. (U. of Buffalo, 1948)
Svedberg, Arthur H., Cleveland, Ohio (Hahnemann, 1945)
Svigals, Robert E., Roslyn, N. Y. (New York M. C., 1951)
Swadey, John G., Pembroke, Mass. (Western Reserve, 1947)
Swank, Ralph L. II, Buffalo, N. Y. (Jefferson M. C., 1963)
Swart, Edwin G. Jr., Jacksonville (U. of Tennessee, 1967)
Swartz, Ronald S., New York, N. Y. (Tulane, 1968)
Sweeney, Howard E., Chicago, Ill. (Loyola, 1962)
Swersky, Martin R., Neptune, N. J. (Mainz U., W. Germany, 1965)
Szentivanyi, Judith, Omaha, Neb. (U. of Debrecen, 1952)

Taggart, John P., Winter Park (Ohio State, 1966)
Talan, Leon, Miami Beach (U. of Mainz, 1969)
Talbott. John H., Key Biscayne (Harvard, 1929)
Tanz, Alfred, New York, N. Y. (New York M. C., 1948)
Tarasuk, Irving A., Miami Beach (George Washington U., 1935)
Tauber, Harvey B., East Meadow, N. Y. (U. of Louvain, 1970)
Taus, Stephen D., Bronx, N. Y. (Chicago M. S., 1970)
Taylor, James S., Cincinnati, Ohio (Indiana U., 1966)
Tejada, Francisco C., Collinsville, Ill. (U. of Santo Tomas, 1956)
Teplitz, Carl, Hallandale (State U. of N. Y., 1956)
Tepper, Maurice C., Bala-Cynwyd, Pa. (Hahnemann, 1936)
Thanasophon, Bunsri, Monroe, La. (Mahidol U., 1960)
Thanasophon, Surapin, Monroe, La. (Mahidol U., 1960)
Theisen, Nikolaus J., Escanaba, Mich. (U. of Bonn, 1949)
Thomas, Kenneth E., Richmond, Va. (Stanford U., 1959)
Timberlake, Byron B., Tampa (Ohio State, 1964)
Tocci, Paul E., Miami (U. of Florida, 1970)
Toledo, Jorge, Mount Pleasant, Texas (Havana U., 1951)
Toner, Stephen J., Birmingham, Ala. (U. of Alabama, 1966)
Toreki, William, Morrisville, Pa. (Jefferson M. C., 1963)
Tornambe, Paul R., Jamaica, N. Y. (New York M. C., 1937)
Torres, Thomas M., APO New York (U. of Puerto Rico, 1962)
Torsch, Theodore A., Louisville, Ky. (U. of Louisville, 1970)
Tredennick, John T., Johnstown, Pa. (Temple, 1957)
Tucker, Elliott W. Jr., Tampa (U. of Dublin, 1967)
Tukel, Suleyman R., Smithers, W. Va. (U. of Istanbul, 1953)
Turnbull, Steven H., Memphis, Tenn. (Columbia, 1945)
Tyler, Thomas C., Miami (Loyola, 1966)

Udesky, Herbert L., Winnetka, Ill. (U. of Illinois, 1936)
Ulin, Alexander W., Wyncote, Pa. (U. of Pennsylvania, 1937)
Ulben, Semih M., Brooklyn, N. Y. (U. of Istanbul, 1955)
Ullah, Farid, Fernandina Beach (Khyber M. C., 1960)
Urbach, James I., Fort Rucker, Ala. (Columbia U., 1965)

Valdes, Leandro A., Chicago, Ill. (Havana U., 1940)
Valdes, Luis T., Miami (Havana U., 1954)
Valentino, Leonard A., Key West (Loyola, 1965)
Valle, Santiago, Evansville, Ind. (Hamburg U., 1941)
Van Ore, Stevan M., Winter Park (U. of Miami, 1970)
Vance, Donald A., Jacksonville (U. of Arkansas, 1970)
Van Hook, Robert M., Orlando (Indiana U., 1967)
Van Sickle, George R., Tampa (U. of Ottawa, 1960)
Vargas, Abelardo, Miami (U. of Caldas, 1960)
Vasallo, Paulino O., Baltimore, Md. (Salamanca U., 1964)
Vazquez, Reinaldo, Miami (U. of Madrid, 1966)
Valez, Pedro G., Miami (Havana U., 1960)
Ventura, Orlando D., Detroit, Mich. (Havana U., 1960)
Victorica, Benjamin E., Gainesville (U. of Cuyo, 1964)
Vidal, David, Willingboro, N. J. (Santo Domingo, 1956)
Vidal, Juan J., Coral Gables (Santiago de Compostela, 1968)
Viera, Max, Dublin, Ga. (Havana U., 1955)
Villa, Luis Jr., Miami (Harvard, 1970)
Villasuso, Raul, Elmhurst, Ill., (Havana U., 1965)
Vinueza, Leonardo E., Towson, Md. (U. of Madrid, 1962)
Vitsky, Brian H., Jacksonville (Johns Hopkins, 1965)
Voelker, Roger G., Pensacola (U. of Basle, 1970)

Waitkunas, Joseph V., Cicero, Ill. (Loyola, 1948)
Waldman, Robert H., Gainesville (Washington U., 1963)
Waldman, Samuel, Brooklyn, N. Y. (Long Island M. C., 1932)
Walke, Lacey, Warren, Mich. (McGill, 1962)
Wall, Harold J., Atlanta, Ga. (Chicago M. S., 1970)
Wallace, Wilson K., Miami (Bowman Gray, 1967)
Walsh, James A., Hackettstown, N. J. (Jefferson M. C., 1961)
Walsh, Peter R., Saginaw, Mich. (Royal College of Surgeons, 1942)
Wasson, Kenneth R., Jacksonville (Vanderbilt, 1970)
Watson, John T., Pensacola (State U. of N. Y., 1961)
Watt, Henrietta H., Tallahassee (Johns Hopkins, 1948)
Webb, Edward A., Ravenna, Ohio (Western Reserve, 1948)

Weber, Marv C., Cincinnati, Ohio (U. of Miami, 1970)
Webster, John G., Washington, D. C. (Tufts, 1952)
Weinberg, Sylvan L., Dayton, Ohio (Northwestern, 1947)
Weinberger, Melvin, Miami (Temple, 1962)
Weiner, Leonard J., Tucson, Ariz. (Albert Einstein, 1961)
Weinhoff, Martin L., Silver Springs, Md. (U. of Illinois, 1970)
Weinmann, Paul L., Buffalo, N. Y. (U. of Buffalo, 1954)
Weinrod, Norman M., Mount Vernon, N. Y. (New York U., 1939)
Weinstein, Alan S., Brooklyn, N. Y. (Chicago M. S., 1960)
Weinstein, Victor J., Metairie, La. (Tulane, 1970)
Weir, Homer F., Northville, Mich. (U. of Illinois, 1940)
Weiss, Robert, Panama City (Temple, 1967)
Weiss, Stephen J., Flushing, N. Y. (U. of Bologna, 1969)
Weissman, Peter N., Ann Arbor, Mich. (New York U., 1966)
West, John H. Jr., Tampa (U. of Tennessee, 1970)
Wharton, Howard S., Kalamazoo, Mich. (Ohio State, 1969)
White, Edward L., Massapequa, N. Y. (New York M. C., 1938)
Wiederhorn, A. Roger, Norfolk, Va. (Columbia, 1969)
Wilcox, John D. Jr., Key West (Tufts, 1969)
Wilcoxen, Joseph K., Gainesville (U. of Illinois, 1968)
Williams, Rex D., Lakeland (U. of Michigan, 1964)
Williams, Robert M., Jacksonville (U. of Michigan, 1969)
Williams, Robert T., Sanford (U. of Miami, 1970)
Wilson, Ted R., Panama City (Emory, 1964)
Wiltz, Othon H., San Juan, P. R. (Havana U., 1960)
Winker, Joel E., Winter Park (Cornell, 1963)
Winkler, Henry J., Mt. Clemens, Mich. (Wayne State, 1960)
Winthrop, Griffith J., Stonington, Conn. (Cornell, 1938)
Wise, Gilbert J., New York, N. Y. (Johns Hopkins, 1957)
Wittenstrom, Eugene C., Eglin AFB (U. of Chicago, 1964)
Wittmann, Stephen J., Bradenton (U. of Maryland, 1966)
Wolfe, Stephen A., Boston, Mass. (Harvard, 1965)
Wolff, Alcuin D., Raleigh, N. C. (U. of N. C., 1954)
Wolfgang, Steven L., Redstone Arsenal, Ala. (U. of Pennsylvania, 1966)
Wood, Kenneth E., Durham, N. C. (U. of Florida, 1970)
Woronov, Victor D., Clearwater (State U. of N. Y., 1934)
Woske, Harry M., Whitehouse Station, N. J. (State U. of N. Y., 1948)

Yachnin, Samuel C., Fort Lauderdale (New York U., 1927)
Yoffe, Stuart J., Panama City (U. of Kentucky, 1968)
Youakim, Maurice I., Glens Falls, N. Y. (U. Beirut, 1962)
Young, Raymond A., Cincinnati, Ohio (M. C. of Virginia, 1965)
Young, Thomas S., North Miami Beach (U. of Louisville, 1970)
Yunis, Leonardo J., Bronx, N. Y. (U. of Litoral, 1964)

Zahn, Edmund K., Pelham Manor, N. Y. (Albert Einstein, 1960)
Zelle, Charles K., Northfield, Ill. (Northwestern, 1942)
Zevallos, Carlos A., Griffin, Ga. (San Marcos, 1952)
Zirkin, Howard J., Chicago, Ill. (Wayne State, 1968)
Zitt, Myron J., Biloxi, Miss. (State U. of N. Y., 1965)
Zohoury, Nasser J., Upper Sandusky, Ohio (Tehran, 1952)
Zubritzky, Desiderius I., McKeesport, Pa. (U. of Pittsburgh, 1945)
Zuniga, Fernando L., Newington, Conn. (U. of Chile, 1957)
Zweig, Arnold, Hollywood, (Chicago, 1964)
Zygaj, Eugene J., Buffalo, N. Y. (U. of Buffalo, 1950)



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2- 5 Sixth Annual Workshop in Teaching Family Medicine, Sheraton-Four Ambassadors Hotel, Miami. For information: Div. of Family Medicine, University of Miami School of Medicine, Box 875, Biscayne Annex, Miami 33152.

3- 8 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

4- 9 Special Procedures: Radiological Interpretations, Playboy Plaza, Miami Beach. For information: Mrs. Gwen Hendel, Mt. Sinai Hospital, 4300 Alton Rd., Miami Beach 33140.

6- 9 Ninth Annual Postgraduate Seminar in Anesthesiology, Playboy Plaza Hotel, Miami Beach. For information: Jordan Katz, M.D., Box 875, Biscayne Annex, Miami 33152.

10-11 Infectious Disease 1972: Treatment and Prevention, Eden Roc Hotel, Miami Beach. For information: Frances Richardson, Mt. Sinai Hospital, 4300 Alton Rd., Miami Beach 33140.

24-29 Courses of Instruction in Coronary Care for the Practicing Physician, Jackson Memorial Hospital, Miami. For information: Louis Lemberg, M.D., P. O. Box 10100, St. Petersburg 33733.

FEBRUARY

13-18 Seventh Annual Postgraduate Course—Internal Medicine 1972, Sheraton-Four Ambassadors Hotel, Miami. For information: J. Bocles, M.D., Box 875, Biscayne Annex, Miami 33152.

MARCH

4 Sixteenth Watson Clinic Annual Seminar, Watson Clinic, Lakeland. For information: Brunildo A. Herrero, M.D., Watson Clinic, Lakeland, Florida 33802.

15-18 Fourth Teaching Conference in Clinical Cardiology, Sheraton-Four Ambassadors Hotel, Miami. For information: Michael S. Gordon, M.D., Box 875, Biscayne Annex, Miami 33152.

15-19 Fourth Annual Nuclear Medicine Seminar, Playboy Plaza Hotel, Miami Beach. For information: Susan R. Cohen, B.A., Div. of Nuclear Medicine, Box 875, Biscayne Annex, Miami 33152.

National and Regional Meetings Held in Florida

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17-19 American College of Surgeons, Sectional Meeting. Sheraton-Four Ambassadors Hotel, Miami. Info. Communications Division, 55 E. Erie St., Chicago 60611.

FEBRUARY

28-Mar. 3 American Society of Contemporary Medicine, Diplomat Hotel, Hollywood. Dir.: John Bellows, M.D. , 30 N. Michigan Ave., Chicago 60602.

28-Mar. 3 American Society for Contemporary Ophthalmology, Diplomat Hotel, Hollywood. Dir.: John Bellows, M.D., 30 N. Michigan Ave., Chicago 60602.

28-Mar. 3 Society of Cryosurgery, Diplomat Hotel, Hollywood. Dir.: John Bellows, M.D., 30 N. Michigan Ave., Chicago 60602.

Florida State Board of Medical Examiners:
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NEEDED IMMEDIATELY: Four internists, urologists, orthopedists and general surgeon for practice in area of rapid growth. Modern local hospitals. Contact Warren A. Clark, M.D., P.O. Box 1376, New Port Richey, Florida 33552. Phone (813) 849-1386.

Miscellaneous

PHYSICIANS WANTED IN FLORIDA, DIVISION OF MENTAL HEALTH: Positions are available for qualified physicians (Florida license not required). General practitioners, internists, surgeons, psychiatrists—in the hospital facilities of the Division of Mental Health. Interest, accompanied by a curriculum vitae, should be directed to E. Arthur Larson, M.D., Deputy Director for Hospitals and Institutes, Division of Mental Health 200 East Gaines Street, Room 425, Tallahassee, Florida 32304.

WANTED IMMEDIATELY: Private emergency room physician. Corporate group needs fifth physician in teaching hospital, Orlando, Florida. Prefer GP. Florida license required. Contact Bruce S. Webster, M.D. (305) 647-5728 or Robert Gay, M.D. (305) 422-0159.

PHYSICIANS NEEDED: Tallahassee, Leon County, Northwest. General practitioners, internists and pediatricians in particular. Inquiries regarding practice in this community can be forwarded to J. Orson Smith Jr., M.D., Chairman, Physician Procurement Committee, 1433 Miccosukee Rd., Tallahassee, Fla. 32303. Phone (904) 877-1145.

DUNEDIN, Pinellas County, middle west coast, Clearwater area. Thirty-six physician multispecialty group seeking internist-gastroenterologist, neurologist, pathologist, obstetrician-gynecologist, GP, and emergency room physician. Affiliated general hospital just expanded to 308 beds. Clinic expansion to be completed January 1972. Long range plans for 650 beds and 75-physician clinic. No investment required. Contact Donald M. Schroder, administrator, Mease Hospital and Clinic, P.O. Box 760, Dunedin 33528, phone (813) 733-1111.

ADDITIONAL PHYSICIANS URGENTLY NEEDED: GP, internal medicine, obstetrics, pediatrics, and general surgery. Modern office immediately available. Contact Pat M. Woodward, M.D., P.O. Box 819 Quincy, Florida 32351.

STAFF PHYSICIAN: State facility for mentally retarded. Beginning salary depending on qualifications. Reply to include brief summary of professional experience. Send to W. B. Barrow, M.D., Medical Director, P.O. Box 2369, Ft. Myers, Florida 33902.

GENERAL PRACTITIONERS, INTERNISTS, PEDIATRICIANS: Urgently needed in new Central Brevard Medical Center located midway between two fine hospitals and minutes from the Kennedy Space Center. Space supplied, rent free, until office completed to individual specifications. Further details: Central Brevard Medical Center, Suite 210, 1395 N. Courtenay Parkway, Merritt Island, Florida 32952.

PHYSICIANS WANTED: General practitioner, internist or physician with surgical training, to join six man medical group in metropolitan Miami area. Excellent unlimited earnings opportunity. Percentage with guaranteed minimum. All benefits of group practice. Contact S. L. Weiss, M.D. or Eli Galitz, M.D., 1025 E. 25th St., Hialeah, Florida or (305) 696-0842.

URGENT—Partner to share expanding practice (GP & OB). Excellent opportunity to right young man with Florida license. Salary first 6-12 months, then partnership. Lovely small Central Florida community close to Orlando and new Disney World. GP area with 155 bed hospital nearby and ability to advance surgical privileges. Phone: (904) 383-3767 or (904) 383-3143. Contact Randall B. Whitney, M.D., 408 Highway 19-Alt., Mount Dora, Florida 32757.

EMERGENCY ROOM PHYSICIANS for 24-hour coverage. Part time acceptable. Florida license and malpractice required. Contact J. Allen Baker, M.D., Chief of Staff or Ben Clarke, Adm., Glades General Hospital, Belle Glade, Florida 33430. (305) 996-6571.

MEDICAL ARTS CENTER: Unique and modern, under construction. Specialty 3-man expansion wing planned. Area needs ENT, internist, ophthalmologist and urologist. Also see "URGENT" ad. Randall B. Whitney, M.D., 408 Highway 19-Alt., Mount Dora, Florida 32757.

PHYSICIANS NEEDED for group practice in modern clinic, especially in field of GP, pediatrics, and internal medicine. County experiencing extremely rapid growth. Contact: Director, Charlotte Inter-Medic Health Center, 1120 South Tamiami Drive, Port Charlotte, Florida 33950. Telephone (813) 629-7501.

EMERGENCY ROOM PHYSICIAN: Needed for St. Petersburg hospital some time after the new year. 42-hour week. Contact H. W. Brown, M.D., 755-19th Ave., N., St. Petersburg, Florida 33704.

COUNTY HEALTH DIRECTOR: Excellent position available in rural area of Florida with residency on Gulf Coast. Write: Wilson T. Sowder, M.D., Dir., Division of Health, Box 210, Jacksonville, Florida 32201.

situations wanted

POSITION WANTED: GP, 12 years, Florida license, wishes emergency room, industrial, group or clinic on East or West coast. Available July 1972. Elliot Polsky, M.D., 127 Dogwood Rd., West Haven, Conn. 06516. (203) 795-3644.

POSITION WANTED: 53-year-old, board certified obstetrician-gynecologist, university trained — subspecialty infertility and cytology — Florida license. Former chief and director of ob-gyn department, clinical teaching experience. Now successful director of medical education wishes opportunity to join group practice in ob-gyn or clinic in Florida. Will also consider position of medical director, director of medical education or director of ob-gyn programs. Excellent references. Please contact Richard C. Ashcom, M.D., St. Elizabeth Medical Center, 601 Miami Boulevard, W., Dayton, Ohio 45408. Phone Home (513) 434-8695 or Office (513) 223-3141.

RADIOLOGIST: Florida license, Board certified and experienced, seeks hospital, clinic or association with radiologist(s). Reply to C-511, P.O. Box 2411, Jacksonville, Florida 32203.

GENERAL SURGEON: Board certified, FACS, age 50, Florida licensed, tremendous experience in all phases of general surgery including endoscopy, head and neck and thoracic, desires opportunity in his field in Florida. Will consider medical group, partnership, full time hospital position or private practice opportunity. Willing to invest. Contact Leonard Lieberson, M.D., 7900 Kennedy Blvd., North Bergen, New Jersey 07047. Phone (201) 869-5549.

SITUATION WANTED: 40 year old, active midwestern general practitioner with Florida license desires position or association with either group, private or industrial practice in Miami or nearby Florida areas. Write C-983, P.O. Box 2411, Jacksonville, Florida 32203.

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FOR LEASE: Medical Arts Building in Florida. Gulf Coast, Clearwater, St. Petersburg area, across street from 300-bed general hospital. For information write Medical Arts Building, P.O. Box 999, Dunedin, Florida 33528.

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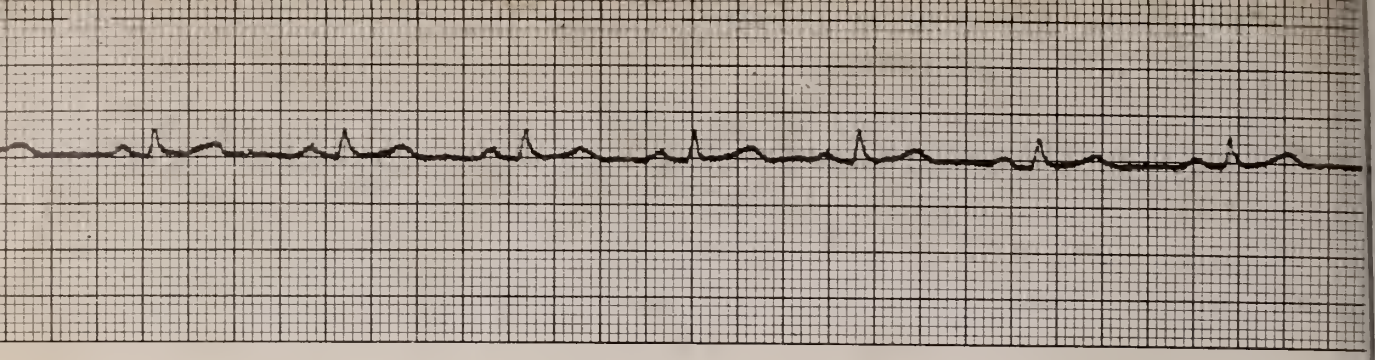
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Before prescribing, please consult complete product information, a summary of which follows:

Indications: Tension and anxiety states; somatic complaints which are concomitants of emotional factors; psychoneurotic states manifested by tension, anxiety, apprehension, fatigue, depressive symptoms or agitation; symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology, spasticity caused by upper motor neuron disorders, athetosis, stiff-man syndrome, convulsive disorders (not for sole therapy).

Contraindicated: Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.

Warnings: Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms (similar to those with barbiturates and alcohol) have occurred following abrupt discontinuance (convulsions, tremor, abdominal and muscle cramps, vomiting and sweating). Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence. In pregnancy, lactation or women of childbearing age, antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.

Side Effects: Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice; periodic blood counts and liver function tests advisable during long-term therapy.

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